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ON

OLD AGE AND THE CHANGES INCIDENTAL TO IT.

By G. M. HUMPHRY, M.D., F.R.S.,

PROFESSOR OF SURGERY AT THE UNIVERSITY OF CAMBRIDGE.

MR. PRESIDENT AND GENTLEMEN,—Old age acquires a gradually increasing interest as advancing civilisation enables a larger number of persons to attain to it, and affords them additional means of enjoying it and profiting by it. From the schoolboy day, now full fifty years ago, when the "De Senectute" of the great Roman orator made a lasting impression upon me, the subject of old age has had some fascination for me, though multifarious avocations have prevented my giving much attention to it. In the past year the Collective Investigation Committee of the British Medical Association, at my instance, commenced an inquiry respecting aged persons, and issued a form, with a memorandum, for the purpose of collecting information of various kinds respecting the condition, habits, &c., past and present, of persons who had attained to advanced age. The minimum age for the subjects of inquiry was fixed at eighty. We are indebted to many members of the profession, and to some others, for the returns they have taken the trouble to make, which at the present exceed 500, the number of males and of females being nearly equal. These have been, in part, carefully tabulated and analysed by myself, with the aid of my friend and assistant, Mr. A. Francis. It is not to be supposed that from this, or other investigations of the like kind, any very startling results will be obtained; for the hill of knowledge is mounted with slow and laborious steps, and we must be content to advance little by little. Moreover, I do not propose to weary you with many of the details of this inquiry, which, I may observe, is not yet completed, but to make a few remarks upon the subject of old age, which will be to some extent based upon information derived from the inquiry just mentioned.

We are, I think, too much accustomed in our ideas to limit the work of development to the periods of adolescence and maturity; and, indeed, the surpassing wonders of that work—I say surpassing wonders, for unquestionably the processes of development of an animal body are the most marvellous, the most mysterious, and the most interesting in the whole range of the physical world—are most fully demonstrated in the early periods of life. But they do not end in them, or even when the body has been brought to its fully matured condition. They continue in a definite and orderly manner, though with lessened and lessening activity, to the termination of life, at whatever period that termination may occur. The march of changing events in the human body, from the age of forty or fifty to one hundred, is as regular, as orderly, as developmental, though less quick, and therefore less apparent, as it is from birth to adolescence, or from conception to birth. It is one of the resultants of that inscrutable *vis*, call it what you will, and refer it to what you will, which makes all nature one, which determines the course and end of each animate and inanimate object, and by which, in the well-known words of Keble,

"To its funeral pile this aged world is borne."

A main feature of the "ascending," if we may so call it, development, the development from birth to maturity, is an increase of material, an increase of activity, and an increase of strength—of passive or resisting, as well as of active, strength; and the main feature of the "descending" development, the development from maturity onwards, is a lessening of material, a lessening of activity, and a lessening of strength. In the normal "ascending" development, material and strength are added to the several parts of the body in due relation to their respective requirements, so that they may all grow on *pari passu*, and the proper harmony of proportion may be maintained between them; and in the normal "descending" development, the relative proportions of the several structures and organs are preserved, while weight, force, and activity are being lowered by gradual and well-adjusted diminution of material and of nutritive activity. During the time that the bones are becoming lighter and less capable of offering resistance, the muscles become, in like proportion, lighter and weaker, and with a narrowing range of action; and the associated volitional and other nerve-apparatus exhibits a corresponding lowering of energy and force. The loss of will to run, jump, and indulge in athletic sports is, or should be, commensurate with the inability of the muscles to effect the requisite movements, and of the bones to bear the requisite shocks. There should not even be a sigh for what is gone, or a longing for its return, though great, perhaps greater than ever, may be the pleasure in beholding the perfection of bodily form and in witnessing the manifestations of strength and activity in the supple frames of the young. The weakening of the heart and the diminished elasticity of the arteries provide a proportionately feebler blood-current; and a lower digestive power and a lessened appetite provide a smaller supply of fuel to feed, not enough to choke, the slowing fires. Thus the capacity for action is diminishing, and the demand for it and the material for it are diminishing also; and all are diminishing in due ratio to one another. It may be said, indeed, that at all periods of life the healthy and well working, and especially the enduring, quality of the body, depends upon a good adjustment, a good balance, of the several parts; and it is upon the well-ordered, proportionately or developmentally regulated, decline in the several organs that the stages which succeed to maturity are safely passed, and that crown of physical glory, a healthy old age, is attained.

A time comes at length when, in the course of the descending developmental processes, the several components of the machine, slowly and much, though equally, weakened, fail to answer to one another's call, which is also weakened, when the nervous, the circulatory, and the respiratory organs have not force enough to keep one another going; then the wheels stop rather than are stopped, and a developmental or physiological death terminates the developmental or physiological decay. The old man who had gone to bed apparently much as usual is found dead in the morning, as though life's engine had been unable to repair itself in sleep sufficiently to bear the withdrawal of the stimulus of wakefulness. Or some exertion may be followed by too great exhaustion. Dr. Willis, the attendant upon King George III., at the age of ninety, after a walk of four miles to see a friend, sat down in his chair and went to sleep, or was thought to be asleep, but he did not wake again. Or some slight, unusual, scarcely noticed excitement may have the same result. A cattle-dealer, aged ninety-eight, who attended Norwich Cattle Market on a Saturday in December of last year, soon after talking and laughing somewhat heartily with a few friends on the following Tuesday was found to be dead. Or a slight indisposition, further lowering the status and force of some organ, fatally disturbs the feebly maintained equilibrium. A lady, aged ninety-four, attended the early service at church, to which she walked a distance of a quarter of a mile to and fro, caught a slight cold, and died in the night.

How much may those who pass gently into this natural or physiological death be envied by the many sufferers under the protracted and painful pathological processes which too often induce a premature extinction of life! The most distressing part of medical duty is the being called upon to witness, with the inability to arrest, the onward course of disease, such, for instance, as that of a slowly but surely growing cancer, boring its way into the strong and sturdily resisting frame; and the great hope and aim of medical study is to prevent such fatal interferences with the developmental processes, and to enable these processes to work out, in their own uninterrupted way, the quiet, easy, gradual method of dissolution.

Yet, strange and paradoxical as it may seem, this gradual natural decay and death, with the physiological processes which bring them about, do not appear to present themselves in the ordinary economy of Nature, but to be dependent upon the sheltering influences of civilisation for the opportunity to manifest themselves and to continue their work. For the needs of the first, or infantile, period of helplessness Nature has made a sufficient provision in the parental

instinct which protects and nurtures the young. But this lasts only so long as the requirement for it exists. It ceases as soon as the young has the ability to help itself; and it does not return and is not supplemented by anything of its kind. It gives way before that struggle for existence which is the engenderer of selfishness, dominating over all other impulses and shutting out all heed for the worn and weary, for the feeble and the decaying. These, being unable to help themselves, are crushed out by the various provisions which Nature makes for their destruction. The good result of this great seeming evil being that all in the natural, or primitive, animal world is in the ascendant to, or in the enjoyment of, bodily perfection. All teems with budding life or full health and strength. To falter is to fall; forasmuch as the first evidences of weakness and the beginning of decay arrest themselves by preventing the power of self-maintenance in the weak and the decaying.

The same with disease. It, in like manner, stops itself. Indeed, it can scarcely be said to be allowed to enter into the pure realm of Nature. Sick animals are not there provided for, have no abiding-place there, and soon perish; so that there is no wasting and pining, no lingering fevers, no destroying cancers, no decrepit frames. Neither the bird that fails to elude the hawk nor the hawk that fails to seize the bird can long continue in existence. Each animal has its so-called enemy ready and at watch to deliver it from feebleness and disease; and the sudden destruction which awaits them all, without fearful premonition and with little pain—this killing in lieu of death—instead of being, as it is sometimes regarded, a cruel feature in Nature's plan, is a happy provision for deliverance from the slower death which increasing failure or progressing disease would have involved.

Thus, in the economy of Nature, death is swift, and comes early, as soon, at least, as failure of strength renders the animal unable to protect, or provide for, itself; and man, it would seem probable, had no exemption from this sharp, though, on the whole, beneficent law of animal life. In early times, when the race was to the physically strongest, when health, and strength, and activity were necessary to provide the hand-to-mouth means of sustenance, and to give defence, when men and animals were much on a par in this and many other respects, early death must have been the common fate, being brought about by climacteric agencies or by the tooth of the hungry beast, or by the hand of man himself. This, indeed, we still find to be the case among some of the rude races of mankind. But in man was the germ of a better order of things, the germ of sympathy with, of feeling and love for, others, which was besides and above the mere parental instinct, and which was calculated to counteract and over-ride the selfish bent, and to raise man in this, as in some other respects, above the mere animal. This has already done much, and it has still an ample field for future development. Through the growth of this germ it was given to man to introduce a new factor into the economy of Nature, and, by forethought, by mutual co-operation, and by care for others, which are the very essence, at any rate the very best feature, of civilisation, to prolong life, when by this very forethought and sympathy life had become more valuable, and when the prolongation of it had, consequently, become more desirable; and scope was thus afforded for the carrying out of those descending or senile developmental processes which must have been nearly dormant in the earlier periods of human existence.

It was not to be expected that this good seed should be without a blending with tares, and the scope thus given for the fuller development of the physiological processes gave scope also for the development of the pathological processes, and enabled the various diseases to spring up and take their course, afflicting not man only, but those animals also which come under his fostering or protecting influence. It may therefore be said that the prolongation of life into and through the periods of decay, and into and through the processes of disease—indeed, almost, if not quite, the very existence of decay and disease—is the result of human forethought and sympathy. In other words, decay and disease are, by civilisation, substituted for quick and early death. Without attempting to balance the *pros* and *cons* of this, we know it to be a position from which there is not, and ought not to be, any disposition to recede; and if there were the wish, there is not the possibility. The onward march of civilisation is a necessity, and the onward progress of disease will tend to go with it. But it does remain for forethought and sympathy to narrow the range of the evils they have themselves engendered, or which have sprung up with them; and it is pre-eminently the noble work of our profession to contribute to this—to weed out and check the growth of the morbid tares, and to help the good seed to grow on to its full harvest,—to prevent, that is, the origin, and to arrest the advance, of disease, and to give to the body the best opportunities for health and longevity. In this great physical work, let it be remembered, we shall not to any great extent succeed, unless our efforts are accompanied by equal efforts to carry out the higher and more important work of removing those impurities in the moral atmosphere for which civilisation has so much to answer, and with which the sources and spread of disease are closely—more closely, perhaps, than we think—associated.

The first requisite for longevity must clearly be an inherent or inborn quality of endurance, of steady persistent nutritive force, which includes reparative force and resistance to disturbing agencies, and a good proportion or balance between the several organs. Each organ must be sound in itself, and its strength must have a due relation to the strength of the other organs. If the heart and the digestive system be disproportionately strong, they will overload and oppress the other organs, one of which will soon give way; and as the strength of the human body, like that of a chain, is to be measured by its weakest link, one disproportionately feeble organ endangers or destroys the whole. The second requisite is freedom from exposure to the various casualties, indiscretions, and other causes of disease to which illness and early death are so much due. Now, in both these—notably, in the second—woman has the advantage over man, and she consequently attains to greater age. In the report of the Registrar-General for 1873, eighty-nine persons were returned as dying at or over the age of 100. Of these, ten only were males; and the superiority of female life is well known by insurance offices to exist, notwithstanding the higher rate of mortality that has been observed during the child-bearing period, and which, there is reason to think, is now slowly disappearing. That this superiority is not entirely due to the comparative freedom from exposures and to the greater temperance in the woman, but is partly a result of a stronger or more enduring inherent vitality, is shown by the fact that, even in the first year of life, when the conditions and exposures of male and female infants are the same, the mortality of girls is less than that of boys. A somewhat larger number of boys are born, but they are more difficult to rear; so that the females soon gain the numerical lead, and maintain it, with almost steadily increasing ratio, to the end. This superiority may be to some extent associated with the less wear and tear in the smaller machinery of the woman's frame as compared with that of man; and one might expect that the small persons in both sexes would live longer than those of greater stature. This, however, scarcely seems to be the case. We find from our returns that the average height of the woman above eighty is about 5 ft. 3 in., which, allowing an inch for the shortening incidental to age, makes it to fall little, if at all, short of the average middle-age stature. The men also we find to be 5 ft. 6 in., which, making a corresponding allowance, gives them a good average height. It may also be observed, which we should not have expected, that the rate both of the pulse and respiration is quicker in the longer-lived sex; the average pulse in the women over eighty being 78 to 79, while that in the men is 73; and the respiration in the women is 22, while that in the men is 18 to 19.

It is a point of interest, in connexion with the inborn or hereditary quality, that phthisis is reported to have appeared in some of the immediate relatives—father, mother, brothers, or sisters—of 82 of the 500 aged persons; in 51 of the relations of the 250 females, and in 31 of those of the 250 males. In the reports of some of these, it is stated to have occurred in several members of the family; and, in a few instances, the disease was manifested in both father and mother. It is evident, therefore, that the delicacy, or peculiarity, whatever it be, of constitution, which is associated with the tendency to the development of tubercle, is not only not incompatible with longevity, but is not unfrequently associated with it. No other special peculiarities have been shown in sufficient numbers to deserve notice here. The greater proportion are reported to be of long-lived families, to have enjoyed good health throughout their lives, to have had good appetite and good digestion, requiring little or no medicine, to have been moderate or small eaters, to have taken little alcohol, and,

commonly, not much meat; they have been good sleepers; and they show no traces of gouty or rheumatic affection in the joints of the hands.

I have said that the main features in the downward, or senile, developmental process are a diminution of material and a diminution of force; and I apprehend that in the normal state it should be simply this—such a diminution, with, perhaps, a slight addition to the amount of oily matter naturally existing in the tissues; and that the other changes and degenerations that are incidental to age are no part of, but are rather to be regarded as deviations from, or morbid departures from, the natural phenomena. Let us consider the changes which take place in the skeleton, forasmuch as they are most appreciable, and, in many respects, the most interesting. The bones which, up to maturity, had been gaining in weight and size, now gradually lose weight, but do not ordinarily diminish in size, as they do in atrophy, from paralysis; indeed, they not unfrequently rather increase in size from the continuance of a slow process of subperiosteal ossification. To this, in part, may be attributed the sharp outlines which the figure of old persons commonly acquires, except in the case of those who become corpulent. The absorption takes place first and chiefly in the more vascular and cancellous parts, the bony plates becoming thinned and removed, and the cancelli and the canals being enlarged and filled with marrow, while the bony tissue itself becomes often, though not always, more impregnated with oily matter. Hence, although the walls of the shaft are being gradually thinned from within, the ends of the bones are first and most affected, which explains the greater liability to fractures near the joints in old persons than in the middle-aged. This change, with the proportionate liability to fracture, is especially remarkable in the trochanteric and cervical parts of the thigh-bones, the strength of which is so much dependent upon the strength and disposition of the cancellous plates.

This change takes place earlier in women than in men, which may be a consequence of the earlier cessation of active occupation in them, and the less amount of out-door exercise they usually take, or it may be due to some natural predisposition in them, associated with a greater tendency to adipose degeneration in other parts, and evincing itself occasionally in an exaggerated manner in the production of osteomalacia. The greater frequency of fracture of the neck of the thigh-bone in them is to be attributed to the greater weakening which the part thus undergoes, as well as to the more near approach to a right angle which the neck naturally forms with the shaft in women than in men.

The vascular and cancellous character of the alveolary processes of the maxillary bones renders these parts peculiarly liable to undergo wasting or absorption, causing the loosening and falling out of the teeth. This takes place earlier in women than in men; the average number of teeth, according to our returns, in men above eighty being 6 and in women 3. Of 221 males, 57 are reported to be edentulous, and of 234 females, 113 are said to be in that condition. The process of absorption and loosening of the teeth also bears a relation to the sponginess of the alveolary processes, being greatest in the upper jaw, in which the teeth in 455 of our octogenarians, in whom an account of the teeth is given, are 736, those in the lower jaw amounting to 975. For the same reason they are greater in the molar and premolar regions than in the incisor and canine, the numbers of teeth remaining being 559 molars and premolars, 409 canine, and 743 incisors.

This absorption of the alveolary processes and consequent removal of a part of the bodily machine which is in full and daily use is remarkable, though it has something of a parallel in the removal of another cuticular appendage—namely, the hair of the head. For the reasons I have given it can scarcely take place in the condition of struggle for existence of the natural animal world, or in man in his primitive state; and it is accordingly commonly observed that the unearthed skulls of our early ancestors are well provided with teeth. The loss of teeth would imply a decay which the early man could scarcely have survived. What effect in more modern life this loss has upon the general health and the duration of the body is not easy to determine. It is often survived for many years; and it may be noted that, as before stated, it takes place more in women than in men, though they are the longer lived. Civilisation is doing something to supply the deficiency which it thus brings in its train by providing artificial substitutes; and they are at any rate free from some of the disadvantages, such as disease and decay, associated with the natural organs.

It is remarkable how completely the alveolary processes become cleared away, so that scarcely a trace of them remains above or below; and the whole framework of the face, which ministered with them to mastication, is attenuated, and the body of the lower jaw is reduced to the narrow bar of its hard lower margin. At the same time, the resistance of the teeth being removed, the direction of the pull of the muscles upon the jaw is altered so as to open out the angle of the bone and bring the ramus and the body almost into a horizontal line. Thus the form of the lower jaw returns nearly to that of the infant. But there is this great difference, that whereas in the infant the bone consists mainly of the tooth-bearing or alveolary part, and the sub-alveolary portion scarcely exists, in the senile condition the latter only remains, the former having been cleared away.

A similar alteration of form in a bone, from an alteration in the direction of muscular force, or from pressure by other cause, may, as we know, be produced in any part of the skeleton, and at any time of life; and a very analogous change to this in the lower jaw may be observed to take place in the neck of a thigh-bone after amputation in the thigh; for the nearly horizontal pull of the muscles upon the trochanter, not being resisted by the vertical weight of the body upon the head and shaft of the bone, will have the effect of widening or opening out the angle. Some years ago I placed in the Pathological Museum at Cambridge two specimens illustrating this; and the fact is not without its interest in connexion with the often-debated question whether the converse of this change takes place in old age—that is, whether the angle between the neck and the shaft of the thigh-bone becomes lessened. A change of the kind certainly takes place in the ascending period of life, the angle being widest in infancy and lessening during growth; and this change is more marked in females than in males, the difference in the angle of the thigh-bone between the two sexes taking place, in all probability, about the time of puberty, when the pelvis is widening in the female and the hips are becoming more prominent. But does this alteration continue in the descending period? I have taken some pains to ascertain this, and have made several measurements of the angle at the junction of the neck with the shaft of the thigh-bone in old people; and though I have in some instances found it less than in the adult, in the greater number of cases it was not so. I have not had the opportunity of making sufficient measurements to settle the question, but, so far as my observation goes, the change is the exception rather than the rule; and I am not aware that a change of the kind takes place in any other bone as a mere consequence of senility—without, that is to say, there being some alteration in the direction of the pressure or forces exerted upon the bone. In the bent back of old age the vertebræ become modified in form; but this is a consequence of the stoop, from enfeebled action of the dorsal muscles, throwing the weight of the trunk too much upon the fore part of the spinal column.

The changes which take place in the skull during old age are interesting. Commonly they correspond with those in the facial part, and the whole cranium becomes lighter and thinner, and therefore smaller. In some cases, however, it acquires an increase of thickness, by deposit of bone on the interior of the brain-case, and chiefly of the calvarial part, which seems to depend upon the lessened pressure there, and the consequent greater afflux of blood caused by the shrinking of the brain. The increase is usually most marked in the frontal region, which accords with the fact that the shrinking is most pronounced in the frontal lobes of the brain. In not a few instances I have found, as mentioned in my treatise on the skeleton, that there has also been an increase in the density and weight of the brain-case to such an extent that, in spite of the loss of the teeth and of the alveolary processes of the jaws, and the atrophy of the face, the weight of the entire skull exceeded that of the average adult skull. In a woman reputed to be 103, whom I examined, the contrast between the thick, dense, heavy skull, and the extremely attenuated light thigh-bone, both of which are in the Cambridge Museum of Anatomy, is very striking. In connexion with this change and the cause to which it is referred, it may be observed that other parts of the osseous system, particularly the harder parts, are liable to undergo similar changes, leading to enlarged and

sclerotic conditions, when at any period of life and from any cause they are subject to an increase of blood-supply.

The cartilaginous parts of the skeleton become somewhat thinner, which accounts for the loss of height in the aged; but I do not think that they usually undergo any other perceptible change in ordinary healthy old age. I have invariably found the costal cartilages soft in old people in whom I have had an opportunity of making an examination after death; the body of Old Parr, as described by Harvey, therefore presenting in this respect, as I believe, no exception to the general rule. And I regard the calcification of them to be a morbid rather than a senile change—a degenerative change to which the body is liable, as it is to cataract, bronchitis, and some other conditions, when it has passed maturity; and not one of the natural senile developmental processes. At whatever period of life it occurs—and it is not unfrequent about sixty—it omens ill for the further prolonged wear of the fabric. It is not quite easy to put the condition of these cartilages to the test, especially in elderly persons. It may, perhaps, be best done by estimating the elasticity perceived when gentle pressure is made upon the lower part of the sternum, though there are obvious difficulties and objections to this method; and of 274 returns in our inquiry upon this point, it is as much as can be expected that the elasticity should be stated to be distinct in 126; in the remaining 148 it is said to be indistinct.

It may, I think, in like manner, be said, with regard to the calcification of the arteries, that it is the result of a morbid process intruding itself upon, interfering with, and arresting, the normal progress of senile development. That it is not, at any rate to a perceptible amount, a usual accompaniment of old age is shown by the fact that in 362 returns respecting the condition of the arteries in persons over eighty these vessels are stated to be knotty in only 40, and even in 257; they are noted as being tortuous in 71. Moreover, the pulse is reported as compressible in 311, and incompressible in 72, in the returns relating to it. In the majority of cases, therefore, the arterial system appears to present a healthy condition in those who attain to great age.

The rate of the heart's beats, according to our returns, does not vary much as age advances. From eighty to ninety, it averages 73 to 74 in men, and 78 to 79 in women. It is stated to be regular in 322, and irregular or intermitting in 85.

The respiration in 110 returns of men between eighty and eighty-five averages 17 per minute. In 47 returns of men between eighty-five and ninety it averages 19 to 20; and in 16 returns of men at and over ninety it averages 23; in women it is a little quicker. Thus, in 86 returns of women between eighty and eighty-five it averages 22; in 54 between eighty-five and ninety it is also 22; and in 37 at and over ninety it is 23. It has to be borne in mind, however, that the not unfrequent occurrence of bronchitis in the aged raises somewhat the average rate of respiration in them.

The failure of nutritive force in the brain manifests itself in the lessening of that power of concentration and quickness of attention upon which the sharp stamping of impressions and the ready recall of them depend; hence the memory for recent events is commonly impaired. The old man meanders on in his conversation unconscious that he is repeating himself; he remembers the tales of long past times, but forgets that he has just told them. This may go on to the condition of senile dementia. Happily, it does not often do so; and it is satisfactory to note how many of the very aged are in good possession of their mental faculties, taking a keen interest in passing events, forming a clear judgment upon them, and full of thought for the present and future welfare of others. It is no less satisfactory to find that the active, even severe and long-continued, functional activity of the matured brain seems in no way to impair its enduring qualities, and that good earnest useful employment of body and mind are not only compatible with, but even conducive to, longevity. A good example of this preservation of mental and bodily faculty to extreme old age was presented by Titian, who is related to have been engaged in painting a picture, which has its place in the gallery at Venice, when in his ninety-ninth year he was cut off by the plague. The wasting of the cerebral hemispheres, which is the accompaniment of failure and feebleness of the intellectual powers, diminishes the pressure in the cranial cavity, and so causes an increase of fluid in the subarachnoid lymph-spaces between the convolutions, and sometimes, as I have already mentioned, an increase in the thickness of the skull. A similar effusion into the connective tissue of other parts of the body, especially the lower limbs, probably also from deficiency of pressure upon the vessels, or lowered tension of the several tissues, is liable to take place, constituting a "senile œdema." This is no uncommon thing in the aged, and is sometimes induced by temporary causes, so that recoveries from it are not unfrequent.

Of the 157 males from eighty to eighty-five, only 6 are stated to have, or to have had, disease of the prostate or bladder; and of these, 3 had recovered from it, 1 at the age of seventy-nine, although the trouble had been of six years' duration. In one, the difficulty of micturition had existed for thirty years. Thus far, the evidence was favourable, and gave rise to a hope that, when a certain period of life had been attained, this serious and painful malady would be escaped. I find, however, that of the 72 males between eighty-five and ninety 17 are reported to be more or less sufferers from urinary troubles. In 4 of these, micturition is stated simply to be slow. In others, there is more or less irritability, or incontinence, or retention. One gentleman of eighty-eight has been entirely dependent upon the catheter for forty years. In 1 only of the 30 returns of men above ninety is there any mention of affection of this kind. On the whole, therefore, although the prospect of escape from diseases of the bladder and prostate gland is not quite as good as I had anticipated from the returns of the men between eighty and eighty-five, it is evident that the aged are, to a considerable extent, free from this source of trouble. Indeed, the aged body does not seem to be, on the whole, prone to disease. Few of the returns indicate the presence of any special malady. We know that even cancers, when they attack old persons, often make slow progress in them, and sometimes fail to make way at all, remaining stationary, or even withering; and the susceptibility to contagious diseases appears to decrease from infancy to old age. The nutritive processes seem to be most easily led astray in early life, when they are in greatest activity, when there is most receptivity and excitability, and most quick communication of impressions from part to part, and from organ to organ.

In the *British Medical Journal* of the 12th of July last I offered some remarks on the repair of wounds and fractures in aged persons. I had frequently noticed that it, as well as the healing of ulcers, takes place as quickly as in middle life—indeed, sometimes more quickly; and I gave the results of a collective investigation on a small scale, which were confirmatory of that view. Since then many instances have been communicated to me by medical men which lead to the same conclusion. I there remarked that "the statement must be qualified in a manner which savours rather of the paradoxical—namely, that wounds in old people heal quickly, provided they do not slough. That is to say, the apparently opposite tendencies exist at this time of life—namely, the tendency to slough and the tendency to heal quickly. Such, for instance, is the experience of oculists, whose testimony on the subject I have asked. They find that the cornea sometimes sloughs after the operation for cataract in old people; but that, when it does not slough, the wound heals quite as quickly as, or more quickly than, at an earlier time of life. So in other operations. The old person may sink, or the wound may slough or ulcerate; but, if these eventualities be escaped, a quick healing may be expected. Certainly this would not have been anticipated. We should not have thought, when the nutritive forces are generally failing, when strength and weight are diminishing, when repair is each year less and less able to keep pace with wear, as evinced, among other things, by the fact that exhaustion is more quickly induced and less quickly recovered from; when the brain is shrinking and memory and other mental powers are lowering, and when the circulation is becoming weaker—that, under these circumstances, the nutritive or reparative processes concerned in breach-closing—in the healing of wounds and ulcers—should manifest an increase of energy, at any rate of rapidity, in carrying on their work. I do not know well how to explain it; but this exceptional phenomenon of nutrition is not peculiar to old age. It may be observed in some other lowered conditions. The wounds in patients exhausted by large losses of blood usually heal quickly, as they also do after operations for cancer, and in many other debilitated conditions. I do not mean in persons of naturally strumous temperament, but persons who have been weakened by illness or in other ways. So do, commonly, the gaps caused by carbuncles and bedsores; and very remarkable is

the quick healing of the stump left by senile gangrene; that is to say, this evidence of vital energy is manifested in the part next above that which was unable to keep alive at all. An exception must be made of certain impaired conditions of the nervous system in which wounds and sores are sometimes very troublesome."

The fact that the fracture of the neck of the thigh-bone, which may be regarded as the old person's fracture, rarely unites, will be urged in support of the opposite and more generally accepted view on this point. "It is well known, however," to quote again from the same paper, "that this failure depends, not upon the age of the patient, or on any peculiarity in the structure of the bone, or upon any changes that take place in it during the later periods of life, though those changes are such as to cause rarefaction of its cancelli and greater liability to fracture, but upon other causes. Such causes, more particularly, are the separation of the broken surfaces, which commonly occurs; the buried position of the inner fragment in the cavity of the acetabulum, which prevents any overlapping of the fragments and any throwing out of uniting matter all around it; as well as the comparative absence, and, when the fibrous covering of the neck is torn though all round, the complete absence, of tissue in which that material can be produced, and also the bathing of the fractured surfaces by the synovial fluid. That these conditions, which are found to be more or less prejudicial to bony union of fractures into other joints, and not senility, are the real causes of failure in the case of the neck of the thigh-bone, is proved by the fact that union of bone will take place at this part of the skeleton as well as elsewhere, if the fractured surfaces be fixed in apposition, either by any kind of impaction or by well-adjusted appliances;" and that this will occur in the aged, there is ample evidence in our museums.

The same remark does not, I fear, apply to the repair after exhaustion from fatigue. The old person is soon tired, and does not recover quickly. The restorative processes of sleep are not so brisk in him as in the young. I have often, however, been surprised at the quick recovery of health and strength by old persons who have been depressed by indisposition and illness; and I have attributed this rallying power to the general soundness of the system, and the good working balance of the several organs which has brought them to old age. To what extent it is, as a general rule, shared by the aged and may be relied upon in them, I must leave to wider experience to decide.

After all, length of life is to be really estimated not by numbers of years so much as by good work done, not by the amount of time spent in the tame fruitless manner indicated by the pithy words of Cowper—

> "For fourscore years this life Cleora led:
> At morn she rose, at night she went to bed"—

nor by endeavours solely to advance our own fortunes, or reputation, or comfort, but by persevering efforts to promote the welfare of our fellow-men.

Thus considered, how large have been the lives which many of you have spent in long laborious days and watchful nights, with little present gain or prospect of future requital, in the out-patient and post-mortem rooms of our hospitals, by the midnight lamp, or by the bedsides of the sick in this vast metropolis, where civilisation has worked out its best and its worst results. While wishing you yet many years of the like usefulness and its assured reward, I must express the feeling that it is not right or just that, in this the wealthiest city the world has ever seen, and in this very wealthy land, so much of the time and energies—the best time and energies—of many of the younger members of our profession should be devoted to attendance upon out-patients, and so much time of a far larger number of the profession should be employed in the onerous and anxious duties of the Poor-law service with such very inadequate pecuniary remuneration. For the sake of all concerned reform is needed here.

I will only further add that there are many points in relation to longevity which I have alluded to only briefly or not at all; that it will be evident from the few figures I have given we need more information; that the forms and memoranda issued by the Collective Investigation Committee can be obtained from the Secretary to the Committee at the office of the British Medical Association, 161A, Strand; and we shall be obliged if any of those present or other members of the profession will contribute to our store, especially by making returns of persons who have attained or exceeded the age of ninety years.

ON THE

SIGNIFICANCE OF A PECULIAR MURMUR IN RELATION TO THE DIAGNOSIS OF INTRA-THORACIC DISEASES.[1]

BY J. S. BRISTOWE, M.D. LOND.

THE various cardiac, arterial, and venous murmurs are for the most part well understood at the present time, although from various causes difficulties still, and probably ever will, arise to interfere with their correct appreciation in particular cases. Cardiac murmurs, at any rate such as are due to the valvular orifices, occur during either the cardiac systole or the cardiac diastole, never occupying the whole duration of either of these actions, and are never prolonged continuously from one of these actions into the other. The nearest approach to anything of the kind is when the first sound of the heart is preceded by a presystolic mitral and followed by a systolic mitral, an exception which, however, is apparent rather than real. Venous murmurs are continuous, and this continuousness characterises them even when they swell and sink more or less rhythmically. Arterial murmurs are of two kinds:—First, murmurs conducted by the blood stream from the aortic orifice, which, therefore, are simply basic systolic, or diastolic, murmurs slightly delayed in proportion to the distance from the heart at which they are heard; and, second, murmurs which are developed in the arteries themselves, in consequence of narrowing or dilatation of their channels, of roughness of their walls, or of some other abnormal condition. The former kind of arterial murmurs needs no consideration at the present moment; it is the latter which interests me. These murmurs are for the most part systolic—that is, they are developed during the diastole of the arteries and while the blood is flowing with its greatest rapidity along them. They are said to be also occasionally diastolic—in other words, to attend the arterial systole, at which time the blood-stream is comparatively sluggish. And hence it is often taught, I believe, that murmurs of arterial origin may be either systolic or diastolic, and may consequently, like true cardiac murmurs, be double. I doubt the truth of this teaching, and my doubts are not removed even by the able paper on this very subject recently published in the *British Medical Journal* by Dr. Finlayson. There is no alternate backward and forward flow of blood in the arteries, and consequently alternate direct, and regurgitant, murmurs cannot arise in them. In the early part of the aorta the blood remains almost stagnant during the cardiac diastole, and it seems practically impossible that its movement can at this time and in this place be productive of sound. As we pass, however, further and further from the heart, the flow of blood during the cardiac diastole becomes more and more active, until at length it gets nearly, if not quite, uniform, during the whole of the cardiac cycle of events. Now, here it seems to me quite obvious that a murmur might run through both the cardiac systole and the cardiac diastole, and that anyone taking the cardiac beat or the pulse for his guide might assume the presence of a double murmur. My belief is that such murmurs are single, that they commence at the moment the effects of the cardiac systole are felt, that they are continued through the whole of the cardiac systole while the blood is flowing rapidly, and that they are continued without break into the period of the cardiac diastole, generally with some modification of character, and die away before the occurrence of the next pulse. In other words, my belief is that arterial murmurs developed at some distance from the heart are due to the onward flow of blood, that they occur during that period in which the blood is flowing with sufficient force to produce a murmur, that they are hence apt to be prolonged beyond the period of the cardiac systole, and that it is a needless refinement, if not an error, to regard them as double in the same sense as an associated aortic systolic and diastolic murmur is double. I have on several occasions, in connexion with abdominal aneurysms, observed murmurs of the kind here referred to, which some have

[1] Read before the East London and South Essex District of the Metropolitan Counties Branch of the British Medical Association, March 19th, 1885.

regarded as double, but I have held to be single, and which I have elsewhere briefly described. Murmurs closely resembling these, if not actually indistinguishable from them, may often be heard in cases of aneurysmal varix or communication between an artery and vein. But here the murmur is said generally to be continuous, and in this respect to resemble a venous hum, associated, however, with rhythmical exacerbations, due to the cardiac systole. Such murmurs may also be heard in cases of communication between the aorta and pulmonary artery, or one of the auricles. These remarks are intended to be introductory to the description and discussion of two or three cases which have many points of independent interest, but in which the presence of the kind of murmur just discussed was both a subject of dispute and an important item in forming a diagnosis.

CASE 1. *Pulsating cancerous tumour of right scapula, both iliac bones, and second dorsal vertebra; paraplegia; bedsores; death; autopsy.* — Catherine B——, thirty-seven years of age, was admitted under my care on July 12th, 1878. She had been married five years, but there was nothing in her history to throw light on the origin of her disease. It was after the birth of an eight months' child in the previous January that the symptoms of her present illness first showed themselves. When she got up after her confinement she felt a good deal of pain in the back between the shoulder-blades, and much pain also in the epigastrium; and these have continued ever since. She has not had much cough, but she says that of late she has spat a good deal of blood, sometimes as much as a pint in the week. She has lost flesh and strength.

The patient is a woman of healthy complexion, and looks well nourished. She complains of pains, between the shoulders running up into the neck, in the chest, in the right shoulder, and in the hips, knees, and ankles. It hurts her to move, and she generally lies on her back. The right side of the neck is somewhat puffy, the veins are large, and there is some pulsation, apparently due to the veins. Also there are a few slightly enlarged glands high up in the neck. The lung resonance and respiratory sounds are fairly normal in front. There are murmurs in connexion with the heart and large vessels which present some peculiar features. In the first place, there seems to be a systolic murmur at the apex, due to the mitral orifice; in the next place, at the base of the heart there seems to be a double murmur, which may be frictional; and, in the third place, there is a loud prolonged systolic murmur audible in the aortic area, and extending thence to the outer extremity of the right clavicle, where it seems to be especially loud; it is also distinctly audible on the right side of the neck. The heart's area of dulness is somewhat increased, and its apex is a little displaced outwards. Its action is regular, and it is thought that the pulses in the carotid and radial arteries of the right side are a little larger than the corresponding pulses on the left side. Abdomen healthy. Tongue clean; appetite poor; bowels regular; urine of high specific gravity, and containing a trace of albumen; temperature normal.

It was assumed at first that the patient had either some obscure cardiac disease or an aneurysm, and all the symptoms were attributed to this cause. But she had not drawn attention to some important features in her case, and our own examination had been incomplete and misleading. A few days after admission, a more exhaustive inquiry was made, and on stripping the chest it was found that a somewhat elastic pulsating tumour occupied the whole of the infra-spinous fossa of the right scapula. This was fairly smooth and rounded, projected about an inch beyond the level of the left scapula, yielded a sensation as of dilated vessels, and did not crackle on hard pressure as if containing plates or spicula of bone. Further examination revealed two similar pulsating tumours, one on either buttock, growing apparently from the subjacent iliac bones. The right, which was the larger of the two, appeared to be of the size and shape of a penny bun. They were round in outline, projected half an inch or so above the general level, and felt as though formed by plexuses of dilated vessels; and large, apparently varicose, veins were visible about their margins and extended from one to the other. All the tumours presented a well-marked murmur. Some of those who examined them regarded the murmur in each as double: as comprising an element corresponding to the cardiac systole, and an element corresponding to the cardiac diastole. My own view was, and repeated further examinations confirmed me in the correctness of it, that the murmur was single, but much prolonged; that it commenced with the arterial pulse or cardiac systole, continued throughout the whole of the cardiac systole, and was prolonged with some change of character into the period of the cardiac diastole. I also came to the conclusion that the sounds heard in the front of the chest were due mainly, if not entirely, to the scapular tumour, and that the supposed double murmur at the base and between the base and the clavicle was a single murmur prolonged through the systole into the diastole. This murmur, as before stated, was loudest at the outer angle of the clavicle, where its continuity was unmistakable, and diminished in intensity as the aortic area was approached, where it most presented the semblance of being an ordinary double murmur. At the apex a systolic murmur only could be heard. It was difficult to be sure whether this was simply the before-described murmur, of which the loudest portion only was transmitted, or an independent mitral murmur. There was much diffused pulsation over the whole of the cardiac area; and on deep expiration pulsation and a thrill were perceptible in the inner part of the left second intercostal space. It was further discovered that there was undue prominence of the upper three dorsal vertebræ, and much tenderness in the neighbourhood of the second and third. It may be added that she suffered from dyspnœa; and that examination of the larynx and retinæ showed these parts to be quite healthy.

The patient gradually got worse. She grew weaker and thinner, suffered constantly from severe pain referable to the regions before indicated, had considerable dyspnœa, and her tumours slowly increased in size. Latterly her pains were referred chiefly to the epigastrium, buttocks, and lower extremities; and early in November she began to show signs of paraplegia, which about the middle of the month became complete. At this time she had lost feeling and voluntary motion in the legs and control over the rectum and bladder, and a large bedsore had formed over the sacrum. Subsequently great œdema of the lower extremities supervened, a purpuric eruption appeared on the arms, and an abscess formed in one of the thighs. She became extremely emaciated and feeble, and (though continuing quite sensible) very apathetic, and died worn out on the 23rd of January, 1879, as nearly as possible six months after admission into hospital and twelve months from the beginning of her illness.

Necropsy.—The upper half of the body was much emaciated, whilst the lower part of the trunk and the legs were enormously swollen with œdema. The buttocks especially were enlarged, partly from œdema, partly from the presence of tumours. Over the sacrum was a very large bedsore, extending down to and exposing the bone. The arms and hands were studded with purpuric spots, many of which presented central vesicles. The pleural cavities were healthy, the lungs congested and œdematous. The pericardium contained an ounce or two of serum, and over the anterior surface of the right ventricle was a large milk patch, and at the apex of the heart some old thickening. The heart was generally hypertrophied and dilated, but all its valves were healthy and apparently competent. The peritoneal cavity was normal. The capsule of the liver was somewhat thickened, and the centres of the lobules were congested. Spleen small, healthy. Stomach and bowels free from disease. The urinary bladder was dilated and injected. The right ureter and kidney were healthy, but the left ureter and the cavity of the left kidney were congested and dilated. This kidney was somewhat swollen and congested, and white patches studded its cortex, and white radial streaks its medulla. Suprarenals normal. A few very small fibrous tumours were present in the uterine walls. The pelvis was removed in mass in order to be minutely examined and to form a museum specimen, but unfortunately it was allowed to spoil, and no exact record of its condition was made. The posterior part of each iliac bone was connected with a large carcinomatous mass, which had grown backwards, caused stretching and attenuation of the glutei muscles, and closely approached the cutaneous surface. Large veins meandered over the tumours and through the substance of the muscles. The hip-joints were unaffected. The tumour of the right scapula had originated in the portion of the bone below the spine, and had destroyed its whole substance with the exception of a narrow strip along the vertebral edge. Many dilated veins were seen upon the surface of the tumour, and many vessels entered its substance. Shoulder-joint healthy. The second dorsal vertebra was softened and wholly destroyed by a growth which had originated in it

and grown backwards, pushing the periosteum, ligaments, and membranes of the cord before it, and thus causing compression and softening of the cord at that spot. The cord and membranes were not, however, directly involved in the growth. The brain was healthy.

Clearly there was nothing discovered in the condition of the heart or pericardium to explain the murmurs heard over the front of the chest. And I think, therefore, I am justified in concluding that the view I took of the auscultatory phenomena during life was the true one—namely, that the murmurs were due to the vessels of the tumours, and, for reasons already stated, to the arteries rather than to the veins. I was inclined at the time to attribute the loudness of the murmur at the acromion process and about the clavicle and sternum to its conduction from its seat of development in the scapula along the continuous chain of bones. I think this explanation is adequate.

(To be continued.)

ON THE

NON-MALIGNANT TUMOURS OF THE SPERMATIC CORD, AND THEIR DIAGNOSIS FROM HERNIA.

By EBEN. WATSON, M.A., M.D.,
SENIOR SURGEON TO THE GLASGOW ROYAL INFIRMARY.

(Concluded from p. 798.)

So much, then, for the fluid tumours of the spermatic cord. I now come to the much more difficult subject of the solid tumours of this organ. My difficulty here arises, not so much from the want of cases in point as from the want of cases with definite and demonstrable results. The indubitable facts of ordinary anatomy, however, help us in our understanding of these cases; for it reveals to us that mixed with the common areolar tissue of the pelvis and of the cord are numerous small masses of fat. These are more abundant within the pelvis, but are also sometimes found in the cord itself. Now this is true for subjects of all ages and free from morbid affection of these parts; but it is well known that at and about the middle period of life fat naturally increases in the body, and especially in the abdomen. Nothing, then, is more likely than that these nodules of fat should at that time increase so as to deserve the name of tumours. Hence we are well prepared to receive the statement of pathologists that non-malignant tumours of the cord are either fatty or fibrous (areolar), or a mixture of both, and my experience, so far as it goes, confirms this statement; but I have not more than one actual dissection[1] to contribute to those already on record, for most of my cases are still alive, and therefore perhaps still doubtful. A good example is the following:—

A middle-aged man from the country called at Mr. Hilliard's shop to get a truss for what he thought was an inguinal hernia; but Mr. Hilliard, on examining it, differed from him, and at least thought it was so unusual in its characters as to induce him to advise the patient to see a surgeon when in Glasgow. He therefore consulted me, when I found a small soft inelastic tumour passing from the right inguinal opening. It could not be separated from the cord when the patient was standing up. It gave a distinct but slight impulse on coughing, and entirely disappeared in the recumbent position. It was noticed, however—and this I think important,—that whenever the patient stood up the tumour was there in its old place, as if it simply hung forward again owing to the patient's change of position. When the patient coughed while in the recumbent position the impulse given to the tumour could be both felt and seen, but whenever the cough ceased, or in the intervals between his coughs, the tumour disappeared. This would not likely be the case with a recent oblique inguinal hernia, which, when coughed down, generally remains down until put back by the hand. Of course the tumour in this case had no gurgling as if it contained bowel, but felt smooth and soft, and slipped readily from the fingers to either side of the inguinal opening, into which it could be easily pressed in any position of the body. It had existed probably for a long time, and the man could not tell how his attention had been drawn to it, but when he discovered it he at once consulted his doctor in the country, who advised him to wear a truss, but it had not kept it up rightly, and hence his visit to Mr. Hilliard. I did not think this a hernia, even of omentum, but a small portion of fat—a lipoma, in short, connected with the upper part of the cord, or possibly an instance of what Cloquet actually found on dissection, and described in his work on Hernia—viz., a portion of fat belonging naturally to the areolar tissue of the pelvis, which had increased unduly and protruded through the inguinal canal. This would no doubt better account for the impulse on coughing and the disappearance of the tumour in the recumbent position. I therefore did not press the continuance of the truss; but as it relieved the man's mind to wear it, I advised that it should be of the slightest power of spring. It is nearly two years since I saw this man, but I have heard from Mr. Hilliard that he lately saw him, much improved in health, but with the little tumour quite unchanged in size or appearance.

I could relate, if necessary, the details of other two cases, which I still occasionally see, of precisely similar kind, only they have to my knowledge continued much longer without appreciable change. In one of these cases a slight truss has long been worn, in the other no artificial support has been employed, and both patients are very active in their habits, and enjoy quite good health. It may be worth mentioning that in the latter of these cases a truss was at first applied by the advice of another surgeon, but it was found that the little tumour constantly slipped to one side of the pad, and caused a disagreeable sensation of pinching to the patient. He therefore gave up using it, and without any increase of the tumour, though it is nearly ten years since he first accidentally noticed its presence.

I believe that these are cases regarding which there may be much difference of opinion, especially when stated in writing without examination of the patients, or unless those who read them have had experience of some such cases for themselves. I can only say that these tumours differ from omental herniæ, with which they are alone comparable, in that they are absolutely painless and quite destitute of that dragging feeling characteristic of true epiploceles. They are quite smooth, of a regular oval shape, almost fluctuant, and slide about more widely than herniæ. These characters of tumours of the cord may be so far definitely given and appreciated without further explanation. It is not so, however, with the other two, which are perhaps the most important of all—viz., the impulse on coughing and the disappearance in the recumbent position. Let us, therefore, consider these a little more particularly.

1. When the tumour is situated high up the cord, and indeed belongs partly to the abdomen, the impulse on coughing may be as distinct as that of an omental hernia, because in such an act pressure is made equally on all the contents of the abdomen, and must tell on the tumour as it would on an omental protrusion; but as the tumour grows and descends towards the scrotum, which it naturally does by its own weight, this impulse on coughing greatly diminishes, and so it happens that in most cases, before a surgeon is consulted at all, that sign is absent, or at all events quite distinguishable from the direct and forcible impulse given to a hernial protrusion, for it is then easily perceived that the tumour only partakes of the general succussion given to the whole side of the abdomen.

2. In like manner, when the patient lies down, the tumour, if small and soft and partly contained in the abdomen, may entirely disappear into the loose areolar tissue above the internal inguinal opening; but when it grows larger it cannot wholly disappear, and must remain partially in the canal, where it may be felt rolling under the surgeon's finger, and whence it falls out apparently by its own weight, more quickly than a hernia, whenever the patient stands upright. In this, perhaps, it is assisted by the elastic reaction of the posterior wall of the inguinal canal, and the tension of the conjoined tendon produced by the action of the abdominal muscles; for it is only by weakness, or at least, relaxation of that tendon, that the tumour is permitted to conceal itself in the canal. It must be remembered, too, that the spermatic cord slips up or is pulled up by the cremasteric muscle much higher in some subjects than in others;

[1] When operating in a case of strangulated hernia, on May 3rd, 1885, I found a small fatty tumour, about the size and thickness of one's thumb, connected with the outside of the hernial sac. I excised it before introducing a suture into the inguinal opening.

and of course any tumour of its substance, if soft and yielding like lipoma, would go along with it, and this has suggested to me to try if traction on the cord would make the tumour descend. I think this manœuvre, if done very gently, does somewhat change the position of these tumours, and I am quite certain that it greatly diminishes the impulse given to them on coughing. Of course this arises from the traction freeing the tumour from contact with the posterior wall of the canal, and would afford good corroborative evidence of its real nature in a doubtful case. In some of these cases, however, the tumour grows both a great deal harder and larger in time, and loses many of the above characters, becoming much like incarcerated omental hernia, as in the following example:—

A man, aged forty-four, was admitted into the Glasgow Royal Infirmary on March 19th, 1884, and told us that he believed he had had a rupture on the right side for many years. It was small and reducible at first, but about seven years ago it greatly enlarged in the groin and gradually descended into the scrotum, where it still further enlarged. He averred that even then it was reducible in bed. He wore a truss, which did not at all keep it up, and seemed only to have pressed on the neck of the tumour. For the last eighteen months it had been quite irreducible and almost quite hard, but was painless to the touch. Such was the state of matters when on March 13th, six days before admission, the man was seized with violent pain in the lower part of the abdomen, but not any in the tumour. His bowels were easily and freely moved with medicine, and he had no sickness. Fomentations were applied and opiates given, so that when he came to the hospital the pain had been very greatly relieved. But the tumour is thus described in the ward journal: "It is about the size and shape of a large Duchess pear, the thin end passing up into the inguinal canal, while the bulk of it occupies the right side of the scrotum. It is at present painful to the touch, because the skin over it is red and œdematous. It is quite irreducible, and gives no impulse on coughing." His bowels had been freely opened the day before admission. Fomentations were applied, and next day castor oil was administered, and acted freely. The pain of the abdomen had ceased, but the tumour was unchanged, and remained so until April 2nd, when I explained to the man that without an operation he could not be relieved. To this he consented, and next day, having put him under chloroform, I cut down upon the tumour, and found it covered by the sheath of the cord, and closely adherent to it and to the testicle. There was not a particle of fluid in the sheath, and it was with difficulty separated from the surrounding parts; this was, however, effected by dissecting from beneath upwards. It was then seen that the narrow part of the tumour was enclosed in the inguinal canal, and adherent to it all round, and giving no sign of its passage into the abdomen. I incised fully one-half of the canal to make sure of this, and then, being quite satisfied that I had simply the fibrous neck of the tumour to deal with, I pierced it with a needle armed with a long chromatised catgut ligature, both ends of which I tied so as to surround the transfixed part, and then I cut it off below the ligature, having succeeded in saving both cord and testicle from injury. Lastly, I made a free opening through the lowest part of the scrotal cavity, which had contained the bulk of the tumour, and, having inserted a drainage-tube, stitched up the main wound. The usual antiseptic dressings were applied. On cutting into the tumour, it was found to be fibrous in its nature, and quite hard and solid throughout its entire extent; but on submitting sections of it to microscopical examination, it was found that the fibres were here and there separated by small masses of fat. In the future progress of the case nothing remarkable occurred. For a few days there was some swelling of the soft parts on the wounded side of the scrotum, and very little discharge of pus. Nevertheless, the wounds healed slowly, and it was not till April 26th, twenty-three days after the operation, that it was noted that they had quite closed up. The scrotum had then regained very nearly its natural size, and there was no hernial protrusion to be detected on the most violent coughing, whatever the position of the body. The patient was kept under observation in the hospital for some weeks longer, and then dismissed cured.

I must remark on this case that its early history does not seem to me quite reliable, but it is clear enough that the truss did not and could not do any good. Nay, I believe it rather increased the irritation and hastened the growth of the tumour by pressing on its neck. Of course it would, in some respects, have been better had the patient applied earlier for surgical assistance, for the tumour would then have been smaller and less adherent to the sheath of the cord. Indeed, one feels amazed that the very weight of the tumour did not cause him to seek its removal; but the truth is that these tumours seem to be so devoid of pain, and to affect the health so little, that few patients would submit to an operation even if proposed to them at an earlier period in the history of the growth, and such growths naturally increase so slowly that, unless irritated by wearing a truss, they may never cause trouble or inconvenience at all (even by their weight and bulk), and therefore may be safely let alone, especially if the patient is at or beyond middle age. Nevertheless, all such cases ought to be watched from time to time, and if there should occur pain or much increase of size, or any decided fixation of the tumour as from adhesions between it and the parts of the cord, an operation may then be considered desirable for its removal; but I do not, as a general rule, advocate a too ready recourse to the knife in such cases.

The only question which remains for consideration is the advisability of the patient's wearing a truss at the first. Now, take the case—and a rare one it must be—where one sees a patient while the tumour can be completely reduced above the internal opening of the canal. It may well be asked, What good could it do to keep the tumour inside the abdomen? and would its increase there not do more harm than if allowed to pass out of the canal? Then, in the commoner case, in which part of the tumour remains in the canal, it is obvious that the pressure of a truss may do harm, especially if the patient is a working man. But if it is allowed to remain there, it may next be asked, Will there be no danger of permitting the descent of a real hernia by the dilatation of the internal inguinal opening and of the canal itself caused by the presence of the tumour? Now, for my part, I think this fear unnecessary, for the tumour rather protects from such an occurrence by its presence and by the consolidation of the infundibuliform fascia which it naturally causes, and which was abundantly evident to me when operating in the case last related in this paper. Besides, there is, in all such cases, the unimpaired form and saccular continuity, if I may so call it, of the peritoneum, which we have good reason to think is in itself a protection against a hernial protrusion. On the whole, then, I do not recommend the use of a truss in these cases unless it relieves anxiety in the mind of the patient; but I should certainly forbid it if it caused any irritation or pain in the tumour. I need hardly add, in conclusion, that whenever symptoms of strangulation are present, it is the duty of the surgeon, without delay, to cut down on any tumour in the inguinal region, however doubtful he may be of its exact nature, and then to deal with it according to what he finds it to be.

A CONTRIBUTION TO THE

CLINICAL STUDY OF THE LIVER VIEWED THROUGH THE URINE.[1]

BY GEORGE OLIVER, M.D. LOND.

No. II.—THE PHYSIOLOGICAL AND CLINICAL ASPECTS OF THE BILE SALTS IN THE URINE.

AT the last meeting of the Leeds and West-Riding Medico-Chirurgical Society I demonstrated the capacity of an acidified solution of peptone as a practical test for the detection and quantitative observation of the biliary salts in the urine; and I showed how well adapted it is to serve clinical requirements in this direction. I now propose to bring forward such physiological and pathological data as this new instrument of clinical observation has brought within my grasp.

1. *The Renal Elimination of Biliary Salts in Normal Urine.*

Bile salts in healthy urine indicated by the peptone test.—Some few years ago that sagacious observer, the late Dr. Murchison, remarked that "not only in jaundice, but in health, a portion of the bile pigment, as well as of the bile

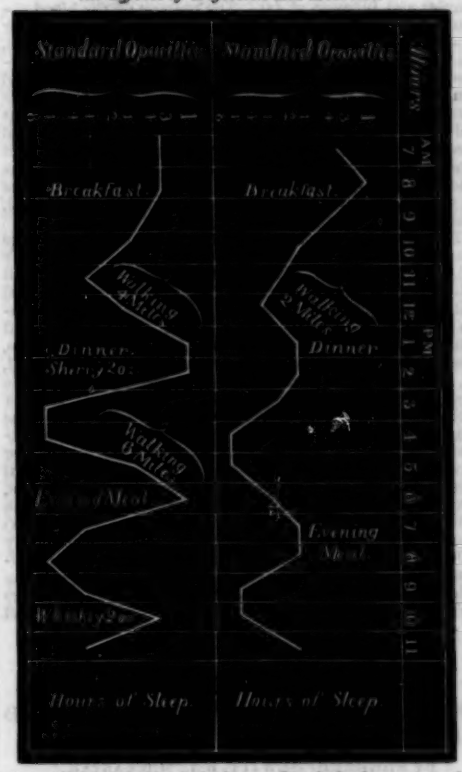
[1] Read before the Leeds and West-Riding Medico-Chirurgical Society, May 1st, 1885.

acids, formed in the liver is absorbed into the blood"; if so, may we not expect to find a small quantity of the central components of the bile (the biliary salts), or a derivative of them, in healthy urine?—providing, of course, they are not completely broken up by chemical action,[2] and the mode of direct testing is sufficiently delicate for the purpose of detection. When it is remembered that in man the liver secretes on an average each day not less than four ounces[3] of bile salts, it will surely not be surprising if a fraction, as it were, of this large quantity should, under the ordinary conditions of health, get adrift from the portal into the general circulation, and be discharged by the kidneys; in fact, were the amount of these leading biliary constituents but half that just indicated, the non-appearance of a small portion of it in the urine would, I think, be regarded by most physiologists as improbable, being contrary to anticipation suggested by kindred data.[4] Certainly so far the biliary salts of the blood have not been isolated; but their absence cannot be inferred from this negative evidence, for the quantity is doubtless too small for separation and detection by the methods hitherto employed. It is not so, however, with the urine; for the bile acids have been separated by Naunyn and Draggendorf in healthy non-jaundiced urines; and lately Lépine and Guérin have shown that the greater part of that portion of the unoxidised sulphur present in the urine which is oxidised with difficulty by reagents is derived from the bile by the reabsorption of taurocholic acid.[5] Then, again, it has been demonstrated that taurin—derived from taurocholic acid—is eliminated in small quantity by the healthy kidney. I therefore conclude that the diminutive reaction of the peptone test solution with normal urines accords with the presence of a trace of bile salts discovered in them by physiological chemists.

The amount of bile salts present in the normal urine of the same individual varies at different periods throughout the twenty-four hours; the causes of variation.—A large number of observations on the urine of healthy persons with the peptone solution has demonstrated the fact that the colourless biliary derivatives are discharged by the kidneys in varying proportions at different times in the course of the day. Though always present, they are increased at certain periods and diminished at others, and I find this variation definitely hinges on the digestive act.

The subjoined diagram represents hourly estimations of the bile salts in the urine of a healthy adult, aged forty-four, on two consecutive days, when every sample of urine was reduced to the uniform specific gravity of 1008, and the degrees of opacity, induced by mixing sixty minims of the diluted urine with the same quantity of the test solution, were registered according to a determined scale represented by the figures 1, $\frac{2}{3}$, $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$. It will be observed that the maximum amounts appear during the periods of fasting, as in the urine passed in the morning and before meals, and that the proportion falls quickly, generally in an hour, after each meal, and attains its minimum in from three to four hours. It would therefore appear that the renal elimination of the biliary salts is the converse of the bile flow into the duodenum; for, according to the facts provided by biliary fistulæ established in the dog, the discharge of bile into the bowel rises rapidly immediately after eating, reaches its maximum in from two to six hours, and returns to its minimum by the time of the next meal, but never ceases, even though fasting is prolonged. According to my observations, this central fact is modified by various hygienic conditions, among which exercise is the most powerful. On comparing the diagrams—one representing the subject walking only two miles, and the other ten miles—we note that, when the exercise was insufficient, the waves of increased elimination before dinner and the evening meal were imperfectly developed, attaining to merely the half standard opacity, and that when the walking was extended to ten miles the renal discharge of the biliary salts following the digestive fall reached the highest degree. It is pretty clear that moderate exercise invigorates the digestive process; for with a fair amount of walking between meals, the withdrawal of the bile salts from, as well as the return of them to, the urine, is rendered more decisive and speedy than when a lounging life is led. Indolence therefore either favours the retention of these colourless excreta within the systemic blood (cholæmia), or causes them to linger within the limits of the portal circulation, and prolongs each digestive effort. The systemic overflow of the biliary salts is probably influenced by other hygienic conditions: such as meteorological changes of temperature[6] and of atmospheric pressure, the nature of the diet, and alcohol. Though I have not yet studied with sufficient care the effects of alcohol on the renal elimination of these elements, I think I am justified by the few data observed in expressing the belief that in the first instance

The hourly Elimination of Bile Salts by the Urine, showing the Effects of Digestion and Exercise.



it is a checking agent, and then—after inducing congestion of the liver—it brings about an increased discharge, which may be even detected during the periods of digestion, when ordinarily the renal overflow of the biliary excreta is at its minimum. Should these positions be confirmed by further observation, it would seem as if alcohol should be classed with indolence as a cause of cholæmia and congestion of the portal system, and is therefore the opposite of exercise. It should be remembered that the urine of patients does not present such great variations in the amount of bile salts as are indicated by the diagrams constructed from hourly observations; for as a rule it is allowed to collect in the bladder for several hours together, and thus acquires a more uniform charge. When, however, the bladder is cleared just before a meal, the urine voided two or three hours afterwards will in health show the digestive withdrawal of the biliary salts. In order to judge of the renal elimination of these constituents the observer should select the urine of

[2] Frerichs as well as Murchison believed that the bile acids normally absorbed into the blood from the liver were metamorphosed by oxidation into other products.

[3] According to Bidder and Schmidt, the daily bile flow of a man weighing 140 lb. is about 50 oz., and the charge of bile salts over 9 per cent., or a little over 4 oz. If it be supposed that a portion of the bile discharged into the bowels is absorbed into the portal blood and is re-secreted, the fact of a large quantity of bile salts constantly circulating in the portal system still remains.

[4] My experimental data, derived from the observation of the viscera of the ox and sheep, show that during digestion the mesenteric glands contain more of the colourless biliary elements than the parenchyma of the liver. The amount that passes by this channel towards the blood is indeed very considerable. I hope to refer to this subject in the addendum to this paper.

[5] See THE LANCET, vol. i. 1885, p. 307.

[6] A chill, for instance, increases the urinary bile salts. This fact has, I take it, some bearing on the etiology of so-called "catarrhal" jaundice and hæmoglobinuria.

fasting, before breakfast, and of digestion, two hours after breakfast; or he should obtain a sample of the whole twenty-four hours' discharge.

2. *The Clinical Significance of the Renal Excretion of Biliary Salts.*

Data provided by experiments on animals.—A review of the facts provided by the injection of the bile salts into the blood of animals (mainly dogs) forms a fitting introduction to the study of the clinical aspects of the renal excretion of these colourless biliary derivatives. The following symptoms and structural changes have been recorded by several observers (Feltz, Ritter, Röhrig, Albers, and others). (*a*) Pulse and respiration retarded. (*b*) Arterial tension and temperature lowered. (*c*) Food refused, and loss of flesh rapid; vomiting of bile and blood. (*d*) Diarrhœa: bilious, sometimes bloody. (*e*) Hæmolytic changes, capillaries obstructed and hæmorrhages. The blood more fluid than normal, and less coagulable. The red discs dissolved,[1] and the serum red-coloured from liberated hæmoglobin, and milky from fat granules and increase of fat. The passage of the blood obstructed in the capillaries: the red discs flow together *en masse*. (*f*) Parenchymatous degeneration of glands, muscles, liver, kidneys, &c. (*g*) Tetanic convulsions, followed by coma and death. (*h*) Urine albuminous, and red from dissolved hæmoglobin. The symptoms and tissue changes vary with the amount of bile salts injected: thus, it is always needful to administer certain large and repeated doses in order to induce convulsions, coma, and death; but a small quantity will produce the analogue of a bilious attack, when there is merely observed retardation of pulse and respiration, lowering of arterial tension, refusal of food, vomiting, and perhaps diarrhœa.

The balance between production and elimination.—The biliary products discharged into the bowels are mainly utilised in digestive work; and a certain comparatively small portion of them must pass out with the fæces, or good health is out of question; unless, perhaps, the renal elimination can in some degree compensate for the intestinal failure. As a rule, however, when either of these channels, by which biliary matter is normally excreted, is obstructed, and, above all, when both are embarrassed or blocked, the blood becomes surcharged with the poisonous excreta (cholæmia), and then the experiments on animals become living facts in our clinical experience: the form of blood-poisoning being acute or chronic, mild or severe, or individualised by idiosyncrasy of tissue, or by special concomitant conditions, such as fever and the like. When, therefore, the balance which subsists in health between the production of these poisonous products and their elimination is disturbed, disorder or disease is induced; as surely as the smoky atmosphere of a room is the natural consequence of a narrowed or obstructed chimney. The clinical observation of the bile salts in the urine appears to me to resolve itself into the detection of an excess and of a check to elimination or of an insufficient discharge.

(To be continued.)

A NEW METHOD OF ADMINISTERING AND ECONOMISING NITROUS OXIDE GAS.

BY FREDERIC HEWITT, B.A., M.B. CANTAB.,

ADMINISTRATOR OF ANÆSTHETICS TO CHARING-CROSS AND THE NATIONAL DENTAL HOSPITALS.

IT has been stated that pure nitrous oxide gas when inhaled is not decomposed, and that the expired gases from a patient under its influence contain no products of decomposition which can be attributed to chemical changes in the gas during its period of association with the circulating blood. Experiments have been made not only in support of this statement, but also to prove that nitrous oxide gas is absorbed to a considerable extent by the blood.

If nitrous oxide is exhaled in much the same condition as it is inhaled, what are the reasons against our employing a comparatively small amount of it over and over again for anæsthetising a patient? If a bag containing two gallons of gas be taken, and its contents inhaled and exhaled through a face-piece devoid of valves, an imperfect form of anæsthesia is as a rule obtained. I have tried this method on several patients, some of whom have been satisfactorily anæsthetised; but as a general rule struggling and excitement supervene and become more marked during the ensuing operation, whilst the corneæ retain their sensibility for a considerable period. Sometimes, indeed, it becomes impossible to render a patient sufficiently unconscious for operative procedures. The reason of these untoward manifestations is obvious; the air which was originally present in the respiratory passages dilutes the small amount of gas to such an extent that the usual evidences of the gas having become mixed with atmospheric air ensue. The carbonic anhydride which is exhaled is supposed by many to intensify the action of the nitrous oxide; but may it not have the effect in the above experiment of rendering the nitrous oxide anæsthesia imperfect, considering that such a small amount of gas is taken for inhalation? Mr. Coleman was in the habit of causing the carbonic anhydride to be absorbed by passing the exhaled gas over lime. By these means he endeavoured to economise the nitrous oxide, but the method soon fell into disuse. The apparatus he used was cumbrous, and I do not know whether he ever took means to prevent the air originally present in the lungs from becoming mixed with the gas.

If we admit that nitrous oxide is not decomposed by the blood, and if means are taken to first get rid of air in the lungs—to wash out, as it were, the respiratory passages by nitrous oxide,—it seems to me that, with a small amount of the latter gas, it should be possible to induce a satisfactory form of anæsthesia by allowing the patient to breathe the gas over and over again. The carbonic anhydride which will still be exhaled will, according to some, be rather an advantage than otherwise; but if there is reason to believe that this gas intensifies the action of the nitrous oxide by producing an anæsthesia of its own, or if there is reason to suppose that it acts somewhat as a diluent to the nitrous oxide, then it follows that, by first flushing out the lungs by nitrous oxide, and, secondly, by depriving the circulating gas of its carbonic anhydride, it should be possible to employ a comparatively small amount of nitrous oxide with the same satisfactory result as that which obtains when a large amount is inhaled and exhaled in the usual manner.

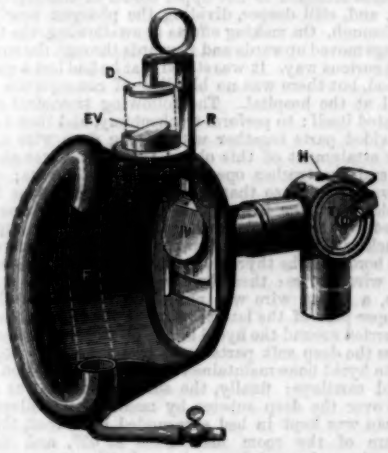
With the object of inquiring into the above interesting questions I had occasion to devise a face-piece which I shall describe below. By the use of this face-piece I was enabled, without removing it from the patient's face, to allow a portion of the contents of a two-gallon bag filled with nitrous oxide to escape, after inhalation, through an expiratory valve, and then, by suddenly depressing a small rod, to cut off all valve action, and to allow the patient to inspire and expire the gas remaining in the bag. I spoke to my friend Dr. Percy Frankland, and he has been kind enough to make with me some analyses of expired gas from patients under the influence of nitrous oxide. These analyses we hope to be able to publish shortly. In the meantime I venture to describe the face-piece used in my experiments, as by its employment I have anæsthetised satisfactorily more than a hundred patients at the National Dental Hospital, using for each administration not more than two gallons of gas.

I have collected samples of expired gas under three different conditions:—1. Two gallons of gas employed. Face-piece without valves. 2. Two gallons of gas employed. Face-piece as in woodcut. Varying amounts of this gas exhaled into air before allowing the patient to breathe in and out of the bag. 3. Several gallons of gas inhaled from a gasometer and exhaled into air; having thus disposed of air in the chest, the patient was made to breathe and rebreathe two gallons of gas, previously placed in communication with the face-piece. When employed with certain simple precautions, the method adopted in the second series of experiments gave, as a rule, very satisfactory results. With regard to the carbonic anhydride exhaled, I shall abstain from making any remarks until the analyses are completed. The method which I have used for absorbing this gas is to allow the inhaled and exhaled gases to pass between two thin-walled cylinders of india-rubber sponge, soaked in a saturated solution of caustic potash. I have not made a sufficient number of experiments to arrive at any definite conclusion as to the advisability of absorbing carbonic anhydride when a small amount of gas is used for inhalation. The method I shall presently describe does not provide for the absorption of carbonic anhydride.

[1] When a solution of the bile salts is added to a drop of blood, under the microscope the corpuscles rapidly disappear. Hünefeld was, I believe, the first to record, some forty years ago, the fact that bile dissolved the blood-corpuscles.

Whether the absorption of this gas would have the effect of rendering the anæsthesia even more perfect remains to be seen by experiment.

I now propose to describe the apparatus before alluded to, (see woodcut). The face-piece (F) is furnished with two valves, an inspiratory valve (IV), and an expiratory valve (EV). The inspiratory valve (IV) is mounted upon the sliding plate (SP), which can be moved up and down by the rod (R) which is attached to it. When the plate (SP) is raised, as in the woodcut, the valve (IV) is in contact with the orifice of the tube coming from the two-way stopcock (T), and gas rushes past it during inspiration, but not during expiration; when, however, the plate is pushed down by the rod (R), the valve (IV) is also displaced, and gas can pass backwards and forwards through the orifice previously guarded by the valve (IV). The expiratory valve (EV) is situated upon the upper part of the face-piece. When the rod (R) is raised, as in the woodcut, the valve (EV) is capable of acting during expiration; when, however, the rod (R) is depressed, the circular damper (D) is pushed down upon the valve (EV), and the latter is rendered inactive. It will therefore be seen that when the rod (R) is raised, both valves are capable of acting; when, however, the rod (R) is depressed, all valve action is suddenly abolished, and gas can only pass in and out of the orifice of the tube previously guarded by the valve (IV), the rod (R) which necessarily comes over this orifice offering practically no obstruction to the passage of the gas. The two-way stopcock (T)



is fixed on the one side to the face-piece (F), and on the other to a piece of tubing connected to a Cattlin bag holding two gallons of gas. The latter (as is commonly the case) is filled from the gas-bottle through a stout piece of india-rubber tubing; and I have found it convenient to have a small stopcock with a bayonet joint interposed between the bag and the gas-bottle, so that the two may be quickly and readily disconnected, if necessary. The anæsthetist can, under these circumstances, attach the bag by any simple contrivance to his coat button, and with the two gallons of gas and the face-piece he is equipped for most short operations.

The following are the details of the method: the bag and the tubing between it and the face-piece having been filled with gas (by placing the two-way stopcock as in the figure), the face-piece (which is also arranged as shown), is accurately fitted to the patient's face. It will be seen that the face-piece is so made that it can be grasped firmly at its back part by the hand of the anæsthetist, whose forefinger and thumb will then be able to press its sides over the nose of the patient. Inspiration now takes place through the air-hole (H) of the two-way stopcock, and expiration takes place through the valve (EV). I am in the habit of testing the fitting of the face-piece by placing my finger for a moment over the air-hole (H), and then asking the patient to "try to breathe." If no air enters at any part, the sides of the face-piece will be observed to fall in as the tendency towards a vacuum is set up; whereas if air should gain admission (as it sometimes does) between the face-piece and the face, there will be slight, if any, falling in of the sides of the former, and, in all probability, some noise of in-rushing air will be audible. Having adjusted the face-piece satisfactorily, gas is turned on at the stopcock (T), and a certain number of expirations are allowed to escape through the valve (EV). As far as my experience goes, it is best to allow nearly one-half of the contents of the bag to be inhaled, and then exhaled into the surrounding atmosphere; and to effect this, four or five respirations are usually requisite. The rod (R) is then depressed. The patient now breathes directly in and out of the bag, and the usual evidences of anæsthesia ensue. The total number of respirations necessary will, of course, vary with each individual patient; the average number in one hundred cases was forty-five. I usually wait for some slight twitching of the muscles before removing the face-piece. The period of anæsthesia which ensues is, I think, not quite so long as that which is met with under ordinary circumstances, although Mr. Read, one of the dental surgeons at the National Dental Hospital, assures me that he sees no difference in this respect between the anæsthesia which is obtained by using plenty of nitrous oxide and that induced by administering two gallons in the manner I have described. I have been unable to ascribe any unusual after-effects to this mode of administering the gas. Further experience is necessary before more detailed comparisons can be made between the anæsthesia thus induced and that obtained by employing several gallons of gas.

The experience I have had in the above method of administering nitrous oxide gas has led me to the conclusion that it can be employed in all short operations, especially in hospitals where economy has to be considered. I believe that the average amount of nitrous oxide used for each patient at the National Dental Hospital is five or six gallons when the ordinary apparatus is employed. At hospitals where small fees are charged for the privilege of having the gas administered, it might be possible to reduce or abolish these fees, except under special circumstances.

Economy in nitrous oxide is doubtless to be secured in others ways than that which I have mentioned. Many anæsthetists use the "Supplemental Bag," which can be adapted to ordinary face-pieces, and by its use less gas is certainly necessary than under ordinary circumstances. How much less will, of course, depend upon various conditions. I believe, however, that, as a rule, it is necessary to use a great deal more than two gallons of gas. If two gallons of gas will suffice for short operations, it may be found practicable for the anæsthetist who is called to administer gas to one patient either to dispense with the heavy gas-bottle or to substitute for it a much smaller and more portable one.

Mr. Hawksley of 357, Oxford-street, is the maker of the face-piece; and I have to thank him for the care and attention with which he has carried out my instructions.

Somerset-street, Portman-square, W.

NOTE ON A

CASE OF OSTEO-ENCHONDROMA OF THE CEREBELLUM.[1]

BY CHARLES ATKIN, F.R.C.S. ENG.,
HOUSE SURGEON, INFIRMARY, SHEFFIELD.

MR. SHAW, of Attercliffe, Sheffield, in making the post-mortem examination on the body of a boy aged eleven, found a hard bony substance in the right lobe of the cerebellum. The cause of death was meningitis following otorrhœa of only three weeks' history. In the right lobe of the cerebellum, embedded in the substance of the organ underneath the grey matter, was a hard body about the size of a bean, half an inch by three-eighths of an inch, weighing seventeen grains. It was not enclosed in a cyst or surrounded by any undue vascularity or softening, and had apparently nothing to do with the cause of death. It was single, no smaller one being in the neighbourhood, quite firm and hard, giving at once the idea that it consisted of bony tissue. The mother stated that he has always been a delicate boy, especially up to the age of four, suffering from "water on the head," that he was late in teething, had

[1] Read before the Sheffield Medico-Chirurgical Society, April 23rd, 1885.

never had scarlet fever or measles, and had always been lively, attentive, and quick at learning. The parents were apparently healthy, though the father had a strumous phthisical appearance, and three brothers aged respectively nineteen, fourteen, and nine all had otorrhœa.

The interest of the case lies chiefly in the origin and nature of the growth. After decalcification the bony tumour was carefully cut in two, one half being cut up into sections for the microscope and the other preserved in spirit. On viewing the cut surface the growth was seen to consist of two portions: one, a central nucleus with prolongations, and the other surrounding tissue of evidently different structure. Under the microscope four different tissues are seen—first, the stellate nucleus, consisting of fine granular matter readily taking aniline colours, staining yellow with picro-carmine; secondly, well-marked hyaline cartilage, forming a complete capsule for the nucleus, which sends its prolongations in and amongst it in a very irregular manner; thirdly, some true bone, and most externally parallel bundles of fibro-cellular tissue, which were, previous to decalcification, as hard as bone. There is no doubt that the tumour is perfectly innocent; it is not a chondrifying or calcifying sarcoma; it is not a mass of brain sand. In the granular centre, brain elements, such as Deiter's cells or Purkinje's corpuscles, are absent. One might imagine that it might be degenerated additamentary corpus dentatum, but even then the stellate cells are wanting. Is the nucleus of the tumour hypertrophied neuroglia due to circumscribed encephalitis? I have searched for records of similar growths, but have found nothing at all comparable to it. Calcifications of tumours of the brain are uncommon, but still well known. Bevan Lewis has recorded a calcified angioma, and Ross quotes one by Meschede. As well as with regard to its seat and the fact of its causing no symptoms, it is curious in another way—viz., that it is an exception to the rule that heterologous enchondromata are generally malignant.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at morborum et dissectionum historias, tum allorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

DISTENSION OF FRONTAL SINUS TREATED BY INCISION AND DRAINAGE; CURE.

(Under the care of Mr. HIGGENS.)

DISTENSION of the frontal sinuses from the accumulation of fluid is somewhat rare, especially when the fluid is non-purulent. Incision, with the application of the trephine, when the bone has not been absorbed from pressure or removed by disease, followed by free drainage, is the best treatment. In addition to the ordinary external opening, Mr. Higgens made one from the distended sinus into the nasal cavity, thus providing further drainage and allowing the external wound to close at an earlier date.

Eliza H——, aged eleven, admitted July 20th, 1884. The history was that usually given in these cases—a blow across the nose from a fall six or seven years previously. Some eighteen months later the child had scarlet fever, and at that time a small abscess formed at the inner canthus of the right eye; this burst and gave no further trouble. Two years ago the right eye began to water, and a swelling appeared at the side of the nose; this has gradually increased. On admission there was a fluctuating swelling surrounded by irregular bony edges, situated at the inner angle of the right orbit rather above the position of the lacrymal sac. The swelling is rather larger when the patient is in the erect position than when lying down; it is also rather smaller in the morning than later in the day.

July 21st.—An incision made into the swelling gave exit to a large quantity of thick, opaque, yellowish discharge; the finger passed through the incision entered a considerable cavity. An opening was made through the lower part of the cavity into the superior meatus of the nose, and a drainage-tube passed through it and out at the right nostril, and left with one end projecting through the incision and the other through the nostril. The drainage-tube remained in position till November 10th (nearly four months), when it was removed.

Dec. 8th.—Opening where drainage-tube projected quite closed; replaced by small depressed cicatrix. An irregular bony edge can still be felt, but the fluctuating swelling has entirely disappeared.

LIVERPOOL ROYAL INFIRMARY.

SUICIDAL WOUND OF NECK TREATED BY TRACHEOTOMY AND THE INSERTION OF DEEP SUTURES; REMARKS.

(Under the care of Mr. REGINALD HARRISON.)

FOR the following notes we are indebted to Mr. H. Pearson.

H. O——, aged fifty-six, no occupation, a weakly and ill-nourished looking man, was brought to the Royal Infirmary early on the morning of July 29th, 1884, with a severe wound in the neck, as follows: There was a deep cut on a level with the upper border of the thyroid cartilage, and extending, on the surface, about two inches to either side of the middle line; this wound, inflicted by a razor, passed horizontally backwards, so as to divide all the structures attached to the upper border of the thyroid cartilage, and, still deeper, dividing the pharynx nearly half way through. On making efforts at swallowing, the thyroid cartilage moved upwards and forwards through the wound in a most curious way. It was stated that he had lost a quantity of blood, but there was no bleeding of consequence on his arrival at the hospital. The following treatment at once suggested itself: to perform tracheotomy, and then to bring the divided parts together with strong deep wire sutures. To the attainment of this object the patient was anæsthetised, and the trachea opened above the isthmus; a large tube was inserted so that respiration might be as free as possible; next, the base of the epiglottis, which on being released from the thyroid cartilage had become tilted upwards and backwards, was drawn down and fixed to the centre of the upper border of the thyroid cartilage by means of a medium-sized wire suture; then, by means of a curved mounted needle, a strong wire was passed on either side through the upper part of the lateral wing of the thyroid cartilage and carried around the hyoid bone; on tightening these two sutures the deep soft parts were brought neatly together, and the hyoid bone maintained in its proper relation to the thyroid cartilage; finally, the surface wound was neatly closed over the deep sutures by means of fine silver wire. The man was kept in bed surrounded by a tent, the temperature of the room maintained at 65°, and the air constantly moistened by a steam kettle; two ounces of sanitas to each large kettleful of water served very well to keep the atmosphere pleasant and sweet. He was ordered to have milk and beef-tea thrice daily through an œsophageal tube, also beef-tea night and morning by the rectum. He was troubled a little with slight bronchial irritation for a few days afterwards, but his temperature never rose above 102·2°. The greater part of the wound united rapidly, leaving only a fine fistulous tract leading from the pharynx to the right angle of the cicatrix. As this opening showed no tendency to heal, a plastic procedure was resorted to on Aug. 29th—viz., the tract was thoroughly scraped with a Volckmann's spoon, and the walls of the fistula brought together by means of a strong deep suture; this was then covered in by bringing together the edges of the previously dissected up skin. This wound united kindly, and on Sept. 12th the tracheotomy tube was removed, and on the 18th (a week before his discharge), this last wound having closed, the patient was permitted to take soft solid food by the mouth.

Remarks by Mr. HARRISON.—This wound was so large that it was quite out of the question to leave it to heal without maintaining the divided structures in good position, and moreover, to this end, it appeared a necessity to have free respiration below the site of injury. Similar treatment seems to suggest itself as commendable and safe for wounds of much less extent than the above, if not, indeed, to all cases of cut-throat whenever the pharynx or larynx has been laid in communication with the surface of the neck. The four deep sutures used had, up to the time of the

patient's discharge, shown no symptoms of causing any trouble. The man has not been heard of at the infirmary since his discharge in a mood far from penitent.

SHEFFIELD GENERAL INFIRMARY.

A SERIES OF UNCOMMON GROWTHS.

(Under the care of Messrs. FAVELL and A. JACKSON.)

FOR the following notes we are indebted to Mr. Charles Atkin, house-surgeon.

CASE 1. *Congenital Coccygeal Tumour; Removal; Death; Necropsy.*—M. L——, aged four months, was brought to the infirmary for a swelling of the upper part and right side of the buttock. The lump was noticed at birth, and it was doubtful whether it had increased at all since, but the parents wished something to be done if possible, as they imagined it interfered with the well-being of the child. The father is phthisical; the mother, strong and healthy, gives a history of fright and a fall whilst pregnant with the child, which at its birth had "convulsions." Up to the present it, however, had only suffered from sleeplessness and gastric disturbances. On examination a semi-solid mass the size of a small orange was found protruding from the right side of the sacrum; it apparently increased in size on crying; the skin over it was adherent, nævoid, and puckered; it involved the coccyx, no extremity being detected. On the left side of the middle line the sacrum was entirely wanting, and the movement of the abdominal contents could easily be detected when the child cried. Double equino varus was also present. Mr. Jackson determined to explore it; so a small incision was made on the most solid portion of the swelling and the skin carefully dissected away. On the growth being removed, it was discovered that the rectum lay uncovered beneath. The tumour was then seen to consist of a mass of lobules, chiefly of hard dense fat bound together by connective tissue; interspersed were small cartilaginous masses, and one or two cysts about the size of a pea, containing opaque pale-green fluid, which under the microscope showed nothing but epithelial and cellular débris. The child progressed favourably for three days, taking the breast well, and then, unaccountably, rapidly failed and sank. At the autopsy the remains of a tumour were found attached by a pedicle to the right half of the sacrum; the left side was deficient, being only represented by a fibrous band. The growth did not encroach on the anterior surface; there was no meningitis, and the organs were healthy. Microscopically, the greater portion of the tumour removed was found to consist of fat and bundles of wavy fibrous tissue; the arteries were numerous and well formed; masses of hyaline cartilage, of most irregular shapes, were embedded in fibrous tissue; there were cysts, with thin regularly concentric walls, filled with semi-transparent yellowish granular material; and, most curious of all, transverse sections of what appeared to be well-made ducts lined with nucleated columnar-celled epithelium. These ducts were closely aggregated together in a mass of fibrous tissue; in some the epithelium was so well developed that it completely filled up the lumen of the tube, and gave the appearance of a rosette, a central axis with radiating spokes; in others the cells had shrunken from the walls towards the centre; in others, again, the cells were absent, no doubt washed away in the process of mounting. In no place was there any trace of sarcomatous or carcinoma cells, or any arrangement of tissue or cells at all resembling them. There was no trace of any bony tissue or hairs.

CASE 2. *Epithelioma of the Ear, involving the Facial Nerve.*—T. H——, aged seventy-seven, was admitted into the infirmary in a very debilitated condition. His previous history had been very good; never had syphilis or any serious illness; no history of cancer in the family. Had noticed a wart on his left ear for the last five years, which used to bleed when it was knocked or rubbed by his hat. He went to a quack, who cauterised it with some strong acid twelve months ago; the wart never returned, but the sore thereby induced never healed. It has gradually increased in size, and occasionally bleeds very violently, especially after a fit of coughing. On examination the whole of the pinna was found to have been replaced by a mass of ulcerating new growth; the edges were raised, everted slightly, and indurated; the neighbouring skin, especially about the mastoid region, was dusky red and brawny, evidently infiltrated with new growth. The discharge consisted of sanious pus, foul smelling, but not very profuse. Under the microscope epithelioid cells were found. On the whole there were well-marked evidences of "new growth," though so much ulceration was present. There were also inability to close the eye, falling of the angle of the mouth, deviation of the tongue to the left on protrusion, all tending to show that the infiltration had reached and invaded the facial nerve. He was also completely deaf on the left side. The case having evidently gone too far for operation, he was kept in and watched, for some months he lingered, ultimately dying of exhaustion, partly induced by extensive bedsores which he had acquired previous to his entry into the infirmary. Microscopic sections of the growth showed it to be a typical epithelioma.

CASE 3. *Congenital Sublingual Dermoid Cyst; Operation; Recovery.*—E. O——, a girl of seventeen, applied at the infirmary with a swelling underneath her tongue as large as a small orange; it filled her mouth, nearly completely forcing the tongue up against the palate, so that she could not possibly swallow solids. She was otherwise healthy, and stated that she had always a small lump there as long as she could remember, but that it had only increased in size the last nine months. She had already been under a medical man, who had first treated it with a seton and then incised it; but it had returned and increased beyond its former bulk. On seizing the front portion of it with forceps and snipping away a considerable part of the anterior wall, a large quantity of thick sebaceous matter presented itself, in which hairs were intermixed. The wound rapidly contracted and healed, and there has been no return, nine months after.

CASE 4. *Large Epithelioma of the Lower Lip in a Female; Operation; no Recurrence a year later.*—R. W——, aged thirty-seven, stated that she was married, no children, always been very strong and healthy, and knew of no "lumps or sores" in the family. Ten months ago she first noticed something wrong with her lower lip; a pimple formed at the edge, then a crack, which continually scabbed over. On examination, the edge of the lower lip was found to consist of a dirty, dark, discharging ulcer, extending from the median line to the angle of the mouth on the right side. Below it the skin was hard, tender, dark-red, and irregularly raised, extending two inches and a half downwards and outwards; in fact, the ulcer and infiltrated skin comprised the whole distance from the edge of the lip to the lower border of the jaw, and behind to the anterior edge of the masseter muscle. In appearance she was stout and plethoric-looking. She had no sharp bad teeth, no mole on the lower lip, though there was on the upper. She can assign no cause, as she has never irritated her lips. The ulcer and neighbouring skin were completely removed by Mr. Favell, the parts coming together only at the expense of the size of her mouth; however, healing took place perfectly, and though her mouth was very much diminished in size, she went out very well satisfied with her personal appearance. It is now exactly twelve months ago since the operation, and there has been no recurrence of the disease. Under the microscope the specimen is seen to be a perfect one of epithelioma.

CASE 5. *Scirrhus of the Prostate Gland; Suppression of Urine; Death; Necropsy.*—W. S——, aged sixty-nine, was admitted with hæmaturia. He was remarkably hale and active for his age, with plenty of colour, and stated that he had always been a very sober and healthy man. His father and mother had both died at a very advanced age. Six or seven months ago he noticed that his water scalded him and was tinged with blood. On admission he complained of pain at the end of the penis and in the perineum, especially when he had his bowels moved. Riding and jolting had not been noticed to increase the pain, which was very severe, however, during micturition. The stream of urine never stopped suddenly. Never passed any gravel, but occasionally clots. Never remembers any matter or slime coming away from him. He stated that he had got much thinner and weaker lately. Examination with the sound yielded no results, nor did microscopical examination of the urine. By the rectum the prostate was detected to be increased in size, and was evidently very tender. For some time he was treated with astringents, and enjoined rest in bed; he apparently improved, till one day he found he could not pass any urine. A catheter was passed, but only a few drops came away; this state of things happened each day; percussion and palpation, as well as sounding the bladder, showed that it was always more or less

empty. However, he gradually got weaker; and though the temperature was normal and the pulse slightly accelerated, he only complained of thirst, and protruded a dry brown tongue. He had no uræmic symptoms, so-called, no twitchings, delusions, or coma, and was quite sensible up to his death, which seemed to occur simply from asthenia. At the post-mortem examination the bladder was found empty, with thickened walls, but no pouches or evidences of cystitis. The ureters were slightly dilated; the kidneys large and pale, but otherwise healthy; the prostate was enlarged to three or four times its usual size, the growth, however, not interfering with the patency of the urethra. On section it presented unmistakable appearances of new growth, being firm in parts, fibrous, and of a yellowish-white colour. There was no ulceration of the mucous membrane. Microscopically it presented the arrangement of a scirrhous carcinoma.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Tumour of Brain.—Malignant Disease of Bones in a Child.—Sarcoma of Lung and Brain.—Primary Carcinoma of Liver.—Hypertrophied Callus of Tibia and Fibula.—Chronic Cerebro-spinal Meningitis.—Actinomycosis.—Typhoid Fever in Animals.

THE last meeting but one of the present session of this Society took place on Tuesday last, Dr. H. Charlton Bastian, F.R.S., Vice-President, in the chair. The proceedings were of a very interesting character, and good discussions followed the reading of most of the papers. The specimens of actinomycosis showed by Mr. Shattock prove that the disease, though but recently recognised, is certainly not new, seeing that the specimens exhibited were at least a quarter of a century old. The specimen of hypertrophied callus shown by Mr. Bilton Pollard was remarked upon as one of an exceedingly rare kind, and on the motion of Mr. Butlin the specimen was referred to the Morbid Growths Committee for special report.

Dr. CHARLEWOOD TURNER showed a Cerebral Tumour, situate in the fourth ventricle, with a secondary deposit on the posterior surface of the cord, and with lesions of the posterior columns of the cord. The specimen was taken from a girl aged fifteen, who had had symptoms of cerebral tumour for nine months; amaurosis had been noted for two months; vomiting, headache, and pain in the left leg and side were present, and also double optic neuritis. The pupils were widely dilated, but active. There was slight paresis of the left side, but no loss of sensation. The deep reflexes were absent. The superficial reflexes were active. The intellect was unaffected. Paralysis of the left side of the face, followed by an epileptiform attack, ushered in death. A soft sarcomatous growth was found filling up the fourth ventricle, from the walls of which it appeared to have grown, invading the cerebellum and medulla oblongata. Microscopical examination showed much exudation in the posterior columns of the cord. The greater liability of the posterior surface of the cord to be affected with new growths was commented on. The limitation of the spinal lesion to the posterior columns in this case, and the occurrence of early sclerosis of the same columns, were regarded as illustrating the especial liability of these columns of the cord to be the seat of pathological lesions. This afforded an explanation of the frequency of locomotor ataxy as compared with the symptoms referable to primary lesion of other tracts of the cord. The occurrence of cases where the characteristic symptoms of locomotor ataxy are independent of spinal lesion is not inconsistent with the general conclusions from an investigation of thirty years. They prove that these symptoms are not essentially spinal. Symptoms due to lesion of centripetal fibres of the posterior columns result most frequently from interference at the least protected part. There were no facts to show that there is a greater liability for this to occur in the brain, and no evidence of a cerebral lesion in cases of ataxy in general to which the posterior sclerosis could be regarded as secondary.

Dr. NORMAN MOORE exhibited a specimen of Sarcoma of Bones and Viscera in an Infant. The specimens were taken from a boy aged one year and a half, who died in St. Bartholomew's Hospital in one of Dr. Gee's wards. The whole anterior part and most of the base of the skull were infiltrated with huge masses of a tough reddish new growth, which microscopic sections showed to be a round-celled sarcoma. Many other bones were infiltrated. The ten upper left ribs and nine lower right ribs, the whole pelvis, and both femora were infiltrated, and had upon them many bosses of the sarcoma. All the lumbar and cervical glands, the right lobe of the liver, and the right suprarenal body contained masses of the new growth. The case began with pain in the right hip in October, 1884. In December a swelling was noticed over the eye. This was rapidly succeeded by swellings on other parts of the skull. Both eyes were extremely depressed, and the cornea sloughed away. The growth increased very fast, and the child died on March 3rd, 1885.

Dr. DYCE DUCKWORTH showed specimens of Sarcoma of the Lung and Brain. The case was that of a man aged fifty-two, who was admitted into St. Bartholomew's Hospital in February, 1885. At Christmas last a left hemiplegia developed after an apoplectiform attack. The early symptoms of the lung disease were cough with copious expectoration. There was impaired expansion of the right side of the chest, with dulness over the lower half of the right side, where the vocal fremitus was absent, and the breathing was very weak. Weakness, pain in the chest, and cough, with hæmoptysis, were the symptoms prior to admission. There was slight fever. Death followed eight days after admission into the hospital. In the corpus striatum of the right side was a pinkish velvety mass about the size of a hazel nut, and many similar nodules were found in the roof of the lateral ventricles and elsewhere. A new growth penetrated the right lung, apparently commencing at the root of the organ; the growth followed the course of the bronchi, but did not find its way through the mucous membrane of the tubes, and remained entirely outside the bronchi. There were about six nodules in the liver and one in the pancreas. The growth was a round-celled sarcoma. He had not found any similar case on record in the Society's Transactions.—Dr. CHARLTON BASTIAN asked what was the condition of the temperature.—Dr. NORMAN MOORE said that the temperature chart showed a general rise in the evening to about 101° F.; occasionally the temperature was 103°. He thought that Dr. Duckworth's case was a most interesting one.—Dr. ORMEROD spoke of the means of distinguishing between the hemiplegia resulting from a tumour and that resulting from vascular disease; if optic neuritis were present, then a tumour might be diagnosed.—Dr. DYCE DUCKWORTH said that the case had not been diagnosed during life. The eyes had not been examined.

Mr. PAUL showed a group of specimens of Primary Tumours of the Liver. These specimens represented good types of the different varieties of epithelial new growths of the liver. The first specimen was taken from a woman aged forty-four; there was a bright-green-coloured nodule, encapsuled and attached to a large branch of the portal canal in the centre of the liver. In the midst of the growth was some inspissated material of a green colour. This tumour was an innocent growth of glandular type. The remainder of the liver was cirrhotic in character. The second specimen was removed from a woman aged fifty who died of pleuritic effusion. The liver was in a state of red atrophy, with fatty infiltration. Several white nodules, not encapsuled nor differentiated from the surrounding tissue, were composed entirely of liver tissue. The cells had a trabecular arrangement, and they had a luxuriant growth, and the capillaries were not largely dilated, as they were in the remainder of the atrophied liver. The next specimen was one of primary carcinoma of the liver, which had also a green colour. It was removed from the body of a Scotchman aged sixty-nine; there was no emaciation. Malaise followed by jaundice and ascites, with rapid death from exhaustion, were the chief clinical features. The growth had spread into the portal vein, and the liver weighed 110 ounces, and was very large. The tumour was soft and diffluent, and of a bright-green colour. There were no secondary growths. The dark-green inspissated material was apparently secreted by the cells of the carcinoma. The hepatic character of the cells was commented on. The fourth case was one of scirrhus and cirrhosis of the liver. The fifth case was that of a woman aged forty-eight, who had had jaundice and ascites with hæmorrhage into the peritoneum. The new growth was of a green and yellow colour, and extended

into the portal vein. The cells were more uniform and more strikingly hepatic in nature than those of the previous specimen. There was evidence of a direct conversion of the hepatic cells into carcinoma. The sixth specimen was one of cirrhosis and a soft form of carcinoma, which infiltrated the organ and the portal vein. The liver weighed sixty-six ounces, and the tumour was of a bright-yellow colour, probably from rapid fatty degeneration; it was an alveolar carcinoma. The last case was one in which rapid emaciation took place, and the disease lasted three months; the portal vein was distended with carcinoma, and in this specimen also a rapid fatty degeneration had taken place. The first two specimens were examples of growths of an innocent character. The acinous and tubular varieties were illustrated. The other growths were examples of the acinous form of carcinoma; specimens of the tubular form of carcinoma had been brought before the Society by Drs. Mahomed, Greenfield, Pye-Smith, and others.—Dr. C. TURNER asked whether the first two specimens might not be regarded as examples of local hypertrophy of the liver, such as was met with in the suprarenal capsules and in the thyroid body.—Mr. PAUL thought it difficult to draw a hard-and-fast line between local hypertrophy and adenoma.—Mr. S. G. SHATTOCK had seen a specimen the exact counterpart of the third specimen; it had a curious pigmented appearance, which Dr. Bernays found to be due to biliary constituents. He suggested that the presence of such pigment proved that the growth had originated in the hepatic cells, and might thus serve to distinguish it from growths originating in bile-ducts or mucous follicles.—Mr. PAUL agreed with this suggestion.

Mr. BILTON POLLARD showed a specimen of Hypertrophied Callus of Tibia and Fibula, removed by amputation from a female child aged five years, who was a patient in University College Hospital, under the care of Mr. Marcus Beck. The child had a fall which injured the affected leg at the age of one year. A year and a half later a painless swelling was noticed at the middle of the leg. The swelling gradually increased. On admission the central portion of the tibia was found to be much enlarged, and another swelling was detected at the junction of the lower and middle thirds of the fibula. The leg was amputated in the belief that the disease was malignant. The tibia was found to be the seat of a new growth of fusiform shape, and was bent above and below the tumour. A layer of compact bone was present at the concavity of each bend, apparently thrown out as supporting structures. The tumour of the fibula was independent of that on the tibia. The knife could easily cut sections of the tumours. The new growth consisted throughout of well-formed bone, which was undergoing a process of remodelling just as occurs in the normal growth of bone. The soft tissues of the growth were made up mainly of spindle-shaped cells with a few round and stellate cells. The growth was indistinguishably blended with the osseous tissue of the shaft of the affected bones. The duration of the swelling (two years and a half); the uniform consistence of the growth; the existence of two separate growths; the history of an injury, which was possibly a fracture—all pointed to the view that the growth was hypertrophied callus. Mr. Pollard had met with one somewhat similar instance on the bones of the forearm. The views that the tumour was of a sarcomatous or a simple inflammatory nature were discussed, but rejected as not harmonising with the ascertained facts, though it was allowed that the difference between a hypertrophy of callus and some forms of sarcoma might be a mere question of degree.—Mr. S. G. SHATTOCK asked whether the growth might have been syphilitic.—Mr. H. T. BUTLIN said the specimen was a very remarkable one. He regarded it as a sarcoma, but the fact that both bones were affected and that there was bending of the bones rather went against this view. Still, he thought that it was a sarcoma.—Mr. BILTON POLLARD said there was no history, and no evidence of syphilis.

Dr. W. B. HADDEN showed a specimen from a case of Chronic Cerebro-spinal Meningitis, taken from a boy aged eleven, who died in St. Thomas's Hospital under the care of Mr. Mason. There was a history of phthisis in the mother's family. Fifteen months before admission the boy was hit on the head with a piece of iron. Next day he complained of his head and began to vomit, which continued till death. A year before death the symptoms suggested to Mr. Willmer Phillips cerebellar tumour. Two or three months later the legs became weak, and he lost control over the bladder. He had fits of an epileptic character. The sight had been failing for about two months. On admission, he complained of pain in the head, was drowsy and nearly, if not quite, blind. The pupils were equal, dilated, and sluggish; the eyeballs continually oscillating. There was occasional sickness whilst he was under observation, but no fits. He passed his evacuations into the bed. At the necropsy there were no signs of injury to the bone, and the dura mater was healthy. Both the upper and under surfaces of the cerebellum were covered with an opaque white material one to four millimetres thick. It was beneath the arachnoid, which was for the most part free, but here and there adherent. The tips of the temporo-sphenoidal lobes were similarly affected, but to a less degree. There was much thickening and opacity about the optic tracts and chiasma, and the edges of the fissures of Sylvius were adherent. There was no tumour, and no naked-eye appearances of miliary tubercles. There was a thick white layer beneath the arachnoid over the posterior surface of the entire lumbar and lower dorsal regions of the cord. The arachnoid was adherent to it over the greater part, but here and there it was free, the surface presenting numerous small bleb-like elevations. There was a caseous nodule at the apex of the left lung and a few miliary tubercles in the kidneys and liver. On microscopical examination the thickening over the cerebellum and cord were found to be really organised lymph, but no tubercles were seen. The symptoms followed so directly on the head injury that it is very probable there was a relation of cause and effect. Possibly the injury set up a meningitis of tubercular nature running a chronic course. The limitation of the disease to the base favours this idea. But, on the other hand, the spinal cord was affected—an unusual accompaniment of tubercular meningitis. Pathologically, the disease was a chronic inflammation of the pia mater, but the relation of this to the head injury and to the tubercular diathesis is less clear.—Dr. ANGEL MONEY had seen a case of chronic purulent cerebro-spinal meningitis in a girl aged three years. There was a history of a fall down a flight of stairs, and the symptoms began soon after this fall. Headache, vomiting, and fits of screaming were the early symptoms. The disease lasted twenty-six weeks. Fever, vomiting, universal rigidity, and unconsciousness were the main clinical symptoms. At the autopsy the body weighed only 17 lb. There was much thickening of the meninges, both of the base of the brain and of the spinal cord; a collection of pus existed beneath the cerebellum; extreme internal hydrocephalus was present, and the fluid was purulent in the lateral ventricles, where the ependyma was much congested and coated with velvety lymph. There was no disease of the internal ear. In another case, marked by the same clinical symptoms, extensive syphilitic arteritis of the cerebral vessels was present, with atrophy and sclerosis of the brain and spinal cord, but without meningitis.—Dr. CHARLTON BASTIAN referred to a case in which there was remarkable rigidity. The child had sustained a severe fall about eight or nine months before the disease began. At the autopsy a white sarcomatous growth was found at the base of the brain and extending down the spinal cord, which was thereby ensheathed in the new growth, which was a quarter or a third of an inch in thickness. The disease appeared to have developed as a direct consequence of the fall.—Dr. GOODHART spoke of cases of chronic meningitis in children, and referred to the thickened velvety lymph which adhered to the meninges, and to the presence of pus in the ventricles. Although in a case he specially referred to there was no perforation of the membranæ tympani, still pus was present in the middle ear. In his experience it was not rare for tubercular disease to extend to the spinal membranes.—Dr. NORMAN MOORE spoke of a class of cases which had been described by Drs. Gee and Barlow under the name of cervical opisthotonos; these cases were really examples of cerebro-spinal meningitis, and in many there was a definite history of an injury which seemed to play a causative part in the occurrence of the disease.—Dr. WILKS said it was difficult to diagnose such cases from the clinical symptoms; for although a distinct physiological condition probably underlay them all, yet the pathological lesion was not always the same. The commonest cause of rigidity in his experience was meningitis, and even in Pott's disease accompanied by rigidity there was frequently nothing but a localised meningitis, without sclerosis of the cord. It was very difficult to distinguish between a new growth and an inflammatory product, and he instanced the disease known as

cervical pachymeningitis, in which, although there were the causes of inflammation, the material thrown out might not unreasonably be regarded as of the nature of a tumour.

Mr. SHATTOCK showed two specimens of Actinomycosis of the Liver, which he had found in the museum of St. Thomas's Hospital. There was no doubt about the presence of the fungus, and sections were placed under the microscope. With one of the specimens there was a history. The specimen came from a girl aged fifteen, who was believed to have died from "scrofulous" disease, which affected chiefly the ovaries and Fallopian tubes. [In our leading article last week by an oversight we forgot to allude to a case of actinomycosis published in THE LANCET, vol. i., 1884, p. 107, by Dr. Knight Treves. We have to thank Dr. Neale, the author of the "Medical Digest," for correcting this oversight.]

Mr. BLAND SUTTON read a paper on Typhoid Fever in Monkeys. Dr. Budd and Professor Axe considered that the typhoid fever, purple or red-soldier, was the same disease as typhoid fever in man, but Dr. Klein had found that there was nothing in common with the disease in man. Mr. Sutton had reported some cases of typhoid fever which occurred in lemurs living in the monkey-house of the Zoological Gardens. Payer stated that in 1839 M. Serres reported an outbreak of typhoid fever among the monkeys in the menagerie attached to the Museum of Natural History, Paris. The symptoms were diarrhœa, increased frequency of the pulse, and fever, ending almost always in death. In January of the present year there arrived at the Zoological Gardens six Canadian beavers apparently in the best of health. In the course of four or five weeks after their arrival four out of the six animals died, and the remaining two were sent away and recovered. The younger ones were the first to succumb, but in all ulcerated Peyer's patches were found both in the agminate and solitary forms; the ulcers were typical of the disease. In the young specimens the various stages could be seen from the normal Peyerian patches through the infiltration and sloughing stages, with the bile-stained débris still hanging to some of them. Small whitish specks could be seen in the liver of two beavers; these were due to disintegration of minute areas of the hepatic tissue. Despite the negative results of inoculation, Mr. Sutton thought his cases proved that typhoid fever could occur in monkeys.

The following card specimens were exhibited:—

Dr. Charlewood Turner: Posterior Sclerosis of the Cord.

Dr. Goodhart: A case of Cirrhosis simulating Cancer of the Liver.

Mr. Battle, for Mr. Croft: (1) Primary Sarcoma of the Kidney; (2) Fistula between small Intestine and Bladder.

Mr. Doran: Pedunculated Fibroma on the Outer Wall of an Ovarian Cyst.

Mr. D'Arcy Power: Three specimens of an Encysted Hernia.

Dr. Burnet: Much Contracted Right Lung (recent specimen).

Dr. Charlewood Turner: Typhoid Infiltration of Ileum (recent).

Dr. Percy Kidd: (1) Tubercular Ulceration of Tongue; (2) for Mr. H. H. Taylor, another specimen; (3) Small Fibroma of Cæcum.

Mr. Churchill: (1) Congenital Papilloma of Chin, Buccal Mucous Membrane, and Middle Line of Neck; (2) Acute Ostitis of Tarsus following Excision.

Dr. Hale White: (1) Rupture of Aorta; (2) Fracture of Sternum with Disatriculation of Costal Cartilages.

MEDICAL SOCIETY OF LONDON.

Syphilitic Disease of the Brain.—Treatment of Cancer of the Cervix Uteri.

AN ordinary meeting of this Society was held on the 27th ult., Dr. W. Miller Ord, F.R.C.P., President, in the chair.

Dr. ALTHAUS read a paper on a case of Syphilis of the Brain. The patient was a clerk, aged twenty-eight, who had had a hard chancre about four years ago, and after having been apparently well for three years was affected with ophthalmoplegia of the left eye, and six months afterwards with hemiplegia of the right side. When admitted into the hospital he showed almost complete paralysis of all the muscles supplied by the third, fourth, and sixth nerves, including the iris and the ciliary muscle. The intellect was impaired; and there was incomplete hemiplegia of the right side. Dr. Althaus argued that this group of symptoms could only be due to syphilis. With regard to the hemiplegia, he laid chief stress on the age of the patient, the fact that there had been no apoplexy when the stroke occurred, and that the paralysis had been incomplete from the beginning. Ordinary hemiplegia did not occur in the prime of life, except where there was heart disease, or diabetes, or tabes spinalis, or alcoholism; it was almost invariably ushered in by apoplexy, and was complete at least for the first few days or weeks; nor was it accompanied with palsies of the ocular muscles. A peculiar symptom in the present case was an enormous exaggeration of the tendon reflexes in the palsied limbs, out of proportion to the degree of paralysis as well as of muscular rigidity which were present; and Dr. Althaus was inclined to consider this as a pathognomonic symptom by which syphilitic hemiplegia was distinguished from ordinary hemiplegia. With regard to the nature and seat of the pathological lesion, he argued that there was a gumma at the base of the brain, near the inner surface of the crus cerebri, close to the pons Varolii, which, by compression had caused paralysis of the three cranial nerves mentioned, and by further extension later on to the crus itself, which contains the crossed pyramidal strands, caused softening of these parts and thereby hemiplegia. He concluded with some remarks about the prognosis of syphilitic lesions of the brain generally, stating that specific treatment was only successful in primary and truly specific lesions; but where a gumma had already caused wasting of the cranial nerves and softening of cerebral tissue—that is, secondary and non-specific lesions—no amount of mercury and iodide of potassium could effect a cure. From this he drew the conclusion that an energetic specific treatment should be adopted as soon as the slightest symptom of syphilitic brain disease was observed, so as to disperse the primary specific lesions and prevent the occurrence of incurable secondary lesions.—Dr. ORD referred to the difficulties of localisation of the lesion causing the various symptoms in this case. With regard to the symptom specially commented on by Dr. Althaus—exaggeration of the deep reflexes—he should very much like to hear the value of this symptom discussed.—Dr. DRYSDALE said it was since 1858 that our knowledge of cerebral and spinal syphilis had been gained. He referred to cases of syphilitic lesions of the brain which had come under his notice.—Dr. K. FOWLER was interested in the exaggeration of the deep reflexes; he had observed this symptom in neurasthenia from almost any cause. The occurrence of hemiplegia at the period of life mentioned in the paper was not, in his opinion, conclusive of syphilis.—Dr. CLARK asked whether headache had been present in this case. He believed that muscular tone exercised an influence on the deep reflexes. He had seen a case of hemiplegia in the course of renal disease in a young girl.—Dr. ALTHAUS said that in aphasia due to syphilitic lesion the prognosis was gloomy. The deep reflexes were not exaggerated in the side which was not paralysed. Cephalalgia was not present in this case.

Dr. HERBERT SNOW read a paper on the Free Use of Caustic Potash in the Treatment of Cancer of the Cervix Uteri. He reviewed the statistics of extirpation of the uterus, and showed the severe mortality which followed the abdominal or the vaginal operation. In many cases the écraseur was unable to remove the whole of the disease of the cervix uteri. The actual cautery had too superficial an action to be of any great service. Chloride of zinc caused much pain and distress, which lasted a long period. These objections did not hold with regard to potassa fusa. Half an hour or an hour was recommended to be spent in the employment of successive sticks of potassa fusa, for the treatment must be thoroughly carried out. None of the cases suffered from peritonitis; and unless the patient get up too soon after the operation, nothing distressing need be feared. All the cases were greatly benefited, and no alarming symptoms were encountered. Fixation of the uterus and infiltration of the vaginal wall were regarded as prohibiting the employment of this method of treatment. It was only by degrees that he had ventured to apply the caustic so freely as he now advocated. He illustrated the paper by narrating several cases in which the treatment had been adopted. The object of the paper was to show that potassa fusa could do all that the vaginal cutting operation could perform without running the risk of the severe operation.—Dr. EDIS said that he had performed

Marion Sims's operation of the removal of a conical portion of the cervix with much benefit. He did not believe that potassa fusa could exercise any curative influence on malignant disease of the cervix.—Dr. C. H. ROUTH was struck with the circumstance that in the cases narrated the patients died in from four to nine months. He believed that cancer, if left alone, would last longer than if operated on. Potassa fusa in his hands had proved harmful; bromine was the most effectual. External vegetations were best healed by tincture of gall-nuts or hazeline.—Dr. ROGERS said that potassa fusa had been used for all sorts of uterine ulceration; in his hands it had set up so much irritation of the bladder that he was compelled to give up the use of it.—Dr. HEYWOOD SMITH said that potassa fusa was of value in areolar hyperplasia of the cervix uteri. He had observed that Chian turpentine changed the character of the secretions, and in other ways proved beneficial.—Dr. H. SNOW briefly replied.

Mr. SPENCER WATSON showed a case of Exophthalmic Goitre in a female, with slowness of speech and dulness of intellect, in which tonic treatment had been beneficial.—Dr. ORD said that in some of the cases of myxœdema which he had seen he had observed in the early stage symptoms which usually accompanied exophthalmic goitre.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

AT the meeting on April 17th, Dr. J. ORME DUDFIELD, President, in the chair,

Dr. THOMAS STEVENSON read a paper on Sewage Disposal. The author commenced his paper by expressing regret that the possibility of dealing with excreta directly on the soil with Arcadian-like simplicity was confined to the very few. He said that the processes, inorganic and organic, by which effete matters are got rid of by the soil can be but feebly imitated by man; yet it is by the study of these processes and their more exact imitation that we must look for a more satisfactory disposal of sewage in the future. The author traced the different methods of excrement-disposal, from the primitive privy to the introduction of the watercloset in 1810, since which time the latter has become the common, although by no means universal, method of removal, notable exceptions being found even in large towns such as Leeds, Bradford, and Birmingham, in which there were many houses without watercloseets, while in Stafford a watercloset was phenomenal. At the beginning of the present century, and for long afterwards, cesspools were universal in London, and although sewers existed it was penal to use them for sewage. At this time the river water at London-bridge was drinkable, and many persons still living remember the waterworks opposite Fishmongers' Hall, which were used for the supply of the city. The use of watercloseets increased the volume of water in the cesspools and necessitated an overflow to the sewers, so that in a few years the state of the law underwent a complete reversal; and now, instead of the discharge of sewage into sewers being a punishable offence, it is penal not to drain into a sewer if one be accessible. The author said that the composition of sewage varied much less than might be expected, and that the difference was one of degree rather than of kind; that there was little difference between the sewage of a watercloseted town and a non-closeted town. Taking the average of the community, the dry solid excrement is 1 oz. per head per day, which is distributed through 300 lb. of water—say, 15 grs. per gallon; and as for the urine, whilst the major portion, of that of adult males, never finds its way direct into the sewers, of the 2½ oz. solids distributed through 300 lb. of water, 1¾ oz. only is organic, one-half of which, urea, is speedily converted into innocent carbonate of ammonia. Although the solid excrement forms the most important polluting agent of sewage, it is by no means the greatest in aggregate amount, and, indeed, forms only a small fraction of the total polluting material, which comes from the innumerable articles of domestic economy. He thought that in no British town could the difficulties attending sewage disposal be greater than those which presented themselves in London—a site much of which is below river level, an immense area, a city remote from the sea, with no available area close to its boundaries, and a situation near the upper end of the tidal reaches. He considered that much credit was due to those who had hitherto dealt with the disposal of the sewage of London, and great blame would rest on the responsible authorities if they did not at once manfully set themselves to do all that can be done to mitigate and abate the nuisance of the filthy condition of the Thames. When fresh and freely exposed to air, as in sewers only partially filled, sewage has little odour, and can scarcely be considered as offensive; but once let it accumulate in large quantities and come to comparative rest, putrefaction sets in, and it becomes vilely odorous—a seething mass full of those minute organisms which live, and grow, and multiply in an airless, deoxygenated medium. To prevent this, sewage must be dealt with in one of three ways: (1) The sewage may be at once thrown into a large volume of water, a river, or the sea, where it can be carried away by currents, diluted by diffusion, and oxygenated by the dissolved oxygen, without appreciable nuisance. (2) It may be applied directly to land, if sufficient area be obtained to dispose of the sewage without offence. (3) It may be treated with chemical agents, such as either destroy the organic matter, or those that destroy the agents of putrefaction, the lower organisms. The author briefly discussed the first method, but only to condemn it, as causing nuisance and danger to health. In speaking of the second method, utilisation on land, he said that while in principle this was no doubt the right one, the fertility of the land being dependent on the restoration to it of the mineral constituents of the food grown upon it, the method from a pecuniary point of view could rarely be profitable, and commonly entailed loss. He estimated the value of a ton of London sewage (the quantity yielded per head of the population per week) if its manurial constituents were in a solid and portable form, at twopence; but when sewage had to be utilised on land in a highly diluted form, and in all weathers, the actual value was found to be only a halfpenny, and this leaves no margin for cost of transport, so that when the sewage had to be pumped the cost of pumping exceeded the value of the article pumped. There is, however, no agent which so efficiently deodorises sewage as the soil, which acts not only as a checker of putrefaction but also absorbs the gases of sewage, and, further, is the nidus of the wellnigh demonstrated nitrifying agent—i.e., the bacterial organism—by which ammonia and nitrogenous organic matter, immediately or through the intermediate stage of ammonia, are converted into nitrates. The author referred to the researches of Schœsing and Müntz and of Warington to show that it is probable that such a bacterium does exist, and plays some such part in nitrification, as yeast in a saccharine infusion does in setting up alcoholic fermentation. A point of great practical importance referred to in this connexion was that the nitrifying action is limited to the superficial layers of the soil, decreasing as we descend, until, at 18 in. below the surface, the action entirely ceases. This points to the possibility of economy in the cost of carrying out the process of intermittent downward filtration, as, by keeping the superficial layers of the soil in good condition for nitrification, the great expense of deep excavation and preparation of the soil may be saved; while broad irrigation, where a sufficiency of land is available, offers a satisfactory mode of sewage disposal, and is one which holds out more likelihood of realising some portion of the value of sewage than any other. It is seldom, however, for obvious reasons, applicable to the sewage of large towns. There is an erroneous notion prevalent that sewage can be effectually treated by means of chemical substances alone. Any chemical which will effectually destroy the spores of bacteria, or deprive them of potential life, will certainly render the sewage unfit to be disposed of anywhere, for by such addition it becomes a poisonous fluid. Chemical treatment directed to the end of clarifying sewage, but not of rendering it non-putrescent, is a great advantage, for the suspended solids of sewage are the chief source of difficulty in treating sewage. As to the agents to be used for clarification, the author said if the sewage is to be used for broad irrigation, simple straining will suffice; when land filtration is the plan to be adopted, something more is advisable; and when the effluent is to be turned into a stream without any other treatment than a chemical one, efficient clarification is indispensable—such a clarification as leaves less than a grain of suspended solids in each gallon of effluent, and even with this degree of efficiency no effluent ought to be turned into a stream unless the volume of running water is enormous in proportion to the sewage it is to receive. The chemicals to be used for precipitating sewage may be varied. Of these lime has been largely used both on account of its being reasonably

efficient and because of its cheapness; it should be dissolved previous to its use. Fifteen grains of lime to each gallon of sewage is an ordinary proper proportion, but it is better to accurately adjust the quantity to the degree of hardness of the water of the district—i.e., one grain of lime per gallon of sewage for each degree of hardness of the water-supply. An excess of lime is hurtful, for subsequent putrefaction is apt to occur; it may kill fish, and according to Warington may entirely prevent nitrification. The addition of a little sulphate of aluminia is beneficial, as it carries down a flocculent precipitate, entangling the lower organisms and their spores, difficult to remove by lime alone. Moreover the use of alum neutralises any excess of lime which might occur in the effluent. Sulphate of iron is another salt which may be usefully employed, but it is questionable whether this is a useful addition when the sewage is subsequently applied to the land. The author concluded his paper with the following remarks: "So far as I can foresee, the sewage disposal of the future for our large towns will be one where application to land supplements a preliminary precipitation process; and the land treatment will be a filtration process by which the area of land requisite will be limited. Such a combined process fulfils all the requisites of good purification, and is based upon these fundamental data. The sewage must be dealt with speedily before putrefaction has begun; and the agents of putrefaction, the bacteria, must be removed by clarification, which secures the removal of most of the bacterial organisms. The precipitated and clarified sewage is then to be brought as speedily as possible under oxidising influence, and nothing more effectively does this than the nitrifying organism. Putrefaction and nitrification are antagonistic processes; and so long as nitrification is going on, putrefaction is, I believe, impossible. Sewage, when clarified by any simple process—and the simpler the better—and then passed through land is odourless, and this cannot, strictly speaking, be said of sewage simply precipitated; and is also insusceptible of putrefaction. Anything that falls short of the result obtained by the combined process I have referred to cannot be considered a very desirable mode of sewage disposal, albeit a less efficient process may under certain circumstances be permissible.—In the discussion which followed Drs. Drysdale, Edmunds, Bernays, C. E. Saunders, and Messrs. Rogers, Field, Corner, Edmunds, Jacob, and Winter Blyth took part.

ACADEMY OF MEDICINE IN IRELAND.

A MEETING of the Surgical Section was held on January 23rd, the President, Dr. E. H. Bennett, in the chair.

Professor STOKES, in a paper on Astragaloid Osteotomy in the Treatment of Flat-foot, commenced by drawing attention to the usually accepted theories as regards the etiology of flat-foot—viz., ligamentous relaxation and a paralytic condition of certain muscles connected with the ankle and foot. He adduced various arguments to disprove these views. Attention was drawn to Professor Ogston's researches in this direction, and an account given of the operation he has devised for the cure of the deformity in question; and objections to it were taken, based on the operation being complicated and difficult, and followed necessarily by an obliteration of the medio-tarsal joint. Mr. Stokes believed that the defect causing flat-foot is due, primarily, to alteration in the tarsal bones, notably the astragalus, which change in it may be either congenital or the result of disease—probably rickets,—and that this stretched rather than relaxed condition of the ligaments is a secondary rather than a primary change. In illustration of this view, he exhibited a specimen of the deformity taken from the museum of Trinity College, and for which he was indebted to Professor Bennett. Having regard to the fact that in the irreducible cases of flat-foot osseous deformation is the chief factor, Professor Stokes believed that the rational treatment for such cases should be to deal exclusively with the deformed astragalus, and to do so without necessarily obliterating Chopart's joint. This he did in the case of a youth aged fourteen, and with complete success. The parts to be operated on were rendered perfectly aseptic, and an incision an inch and a half in length along the inner edge of the foot made, the centre of which incision was the prominence caused by the head of the astragalus. At the centre of the incision another was made at right angles to it, a little behind the situation of Chopart's joint, and the two triangular flaps of skin dissected back for about half an inch. A wedge-shaped piece of bone from the enlarged head and neck of the astragalus was then removed with an osteotome, and it was then found that by adducting and supinating the foot the arch was perfectly restored. The wound during its union was aseptic throughout, and the patient afebrile. The method Professor Stokes adopted for keeping the foot in a position of adduction was by the application of a Dupuytren's splint applied as in a case of Pott's fracture of the fibula. The result of the operation was most satisfactory, and casts of the foot, taken before and after the operation, were exhibited.

Mr. KENDAL FRANKS gave the details of a case in which he had performed Ogston's operation for Flat-foot on Oct. 16th last. The paper was illustrated by two impressions, taken in charcoal, of the foot, before and after operation. The first impression showed the foot resting on the length and breadth of the sole; a remarkable prominence on the inside, corresponding to the astragalo-scaphoid articulation, showed where this joint rested on the ground. The second impression showed that the arch of the foot had been restored, so that when the sole of the patient's foot was blackened with charcoal, and she was placed standing on a moistened sheet of paper, the paper received an impression only of the heel, the outer side, and the anterior portion of the foot. The operation wound was perfectly healed on the sixth day, and the highest temperature recorded was 99·2°.

The adjourned discussion on the Operation for Flat-foot took place on February 20th, when Mr. CORLEY said he was satisfied that the disease commences in the ligamentous and tendinous structures; that if the bones eventually exhibit deformity, it is from growth in some direction from which natural pressure has been removed.—Dr. SWAN said that he considered most of Mr. Stokes's statements were misleading, and some of them appeared to him to be erroneous. Mr. Stokes had stated that the deformity of flat-foot was due to a mal-development of the bony structures of the tarsus, and, without considering the degree or state of the affection, he condemned all methods of treatment as useless except the operations, in which doubtless he included Ogston's as well as his own. He had himself seen thirty-four cases in minor or greater degree, and had observed it under three distinct phases. It commenced with the sliding of the astragalus inward and the upper surface of the os calcis relaxing, the ligament connecting the outside of the astragalus with the calcis. This produced, as Mr. Corley observed, an obliquity at the ankle-joint. The axis of the weight was thrown on its side. Next, there was a relaxation of the plantar ligament. Looking at the anatomy of the parts, the outer division of the plantar ligament fills up the sinus pedis, which prevents displacement of the head of the astragalus, but the interval between the os calcis and the scaphoid is lengthened. Mr. Stokes stated he had observed this in persons of robust health; that was not, however, his experience. In the second stage it was accompanied by a fusion of the muscular structures, which were chiefly of the anterior portion of the foot. The adductor pollicis and the muscles on the inner portion of the foot were atrophied, and the bones could be distinctly felt through those muscles. The tibialis posticus was involved. The third and last stage was one for which no doubt an operation of some kind would be desirable—namely, when the sole of the foot was altogether flattened and the head of the astragalus came upon the ground, and he believed also occasionally the projecting point of the scaphoid. With regard to treatment, it would be too much to admit that all those cases which in the first and second stages did not present serious inconvenience were suitable for operation. The true clue to the treatment of the affection in the earlier stages was to approximate the extremities of the tendinous structures binding the bones together. If bony enlargement or mal-development caused the affection, how was it that in all those cases the foot could be reduced to its pristine symmetry by manipulation? That could not be done in the case of bony deformity. There was a distortion and rotation inwards of the astralagus, as Mr. Corley observed, but there was no enlargement until the last stage, when osteitis was the cause of the enlargement of the bone. He had seen spontaneous cures of the affection. In the case of a patient condemned to long-continued rest the foot regained its natural shape. Ogston's seemed to be the natural method to restore the arch of the foot,

allowing the gradual restoration of the ligamentous structures, which appeared to be untouched in the operation.—The PRESIDENT (Dr. Bennett) suggested the excision of a wedge-shaped piece from the side of the astralagus without opening the ankle-joint. The first and second stages of the affection were most painful.—Mr. STOKES briefly replied.

Mr. ARTHUR BENSON read a paper describing a case of a gentleman, aged thirty-three years, on whom he had successfully removed an Ivory Exostosis from the Auditory Meatus. He had first used electrolysis to destroy the vitality of the periosteum, and produced thereby a superficial necrosis of the apex of the bony growth, which separated after six weeks. Five months later, the effect of the electrolysis not being sufficient, he employed the dental engine, and, with the assistance of Mr. Arthur Baker, removed the remainder of the exostosis. The patient was seated in a dental chair, and whilst under ether a deep vertical slot was cut in the base of the tumour with the dental saw. Into this a small chisel was inserted, and a slight blow from a hammer served to separate the remainder of the base, and the growth was removed. Recovery was perfect, and when last seen (January, 1885, a year after the operation) there was no sign of a return in the position of the growth, and hearing was perfect. The operation was, contrary to the recommendation of almost all authorities, undertaken before the canal was completely closed by the growth. Mr. Benson advocated the early operation, in such cases, as probably easier to perform, less dangerous to the patient, and, on the whole, more in accordance with the progress of surgery, than the plan of waiting until "total deafness had occurred in both ears," as most authors recommended. The mode of operating adopted in the case seemed to offer excellent facilities for the earlier removal of such growths, without the dangers attendant on the use of the drill or gouge. The cause of the growth was supposed to be bathing in a river, which produced pain in the ears.—Mr. STORY gave a brief description of a case of aural exostosis, in which he had some three years ago obtained excellent results by the application of Vienna paste after drilling and electrolysis had failed. The membrane of the drum was perforated during the treatment, but it rapidly healed up, and for the past three years the patient has had no relapse. Exostoses near the external orifice were easy to deal with either by the hammer and chisel or by the dental saw, which seemed an admirable proposal; but growths deep down in the meatus taxed the utmost resources of the most skilful and experienced operators, and should not be touched except in the case of the most urgent necessity.—Mr. SWANZY could hardly imagine a better mode of operating than the one which had been adopted; but he would not have operated in the case in question, deafness being extremely rare as the result of exostosis in the external meatus. Such growths were among the common diseases of the ear, but absolute or serious deafness was uncommon. He would wait until the growth threatened serious and permanent deafness.—Mr. BENSON, replying, said the exostosis was a distinct enlargement of the true bone. The whole question was, how much danger there was in the operation. Most patients would prefer one operation than to go once a month to a doctor to have deafness removed.

Mr. STORY read a paper entitled Operations for Trichiasis and Entropium of the Upper Eyelid, in which, after criticising the operation proposed by Dianoux, which Mr. Story was the first to introduce to the notice of oculists in these islands, he proceeded to describe the manner in which he now operates both for entropium and trichiasis. The method is, with some trifling modifications, the same as that described by Dr. Van Millingen of Constantinople—a transplantation of the ciliary border, without removal of any palbebral skin, the requisite elevation of the cilia being effected, after the completion of Flarer's inter-marginal incision, by inserting a strip of mucous membrane, taken from the patient's mouth, into the space left exposed by Flarer's cut.

After a brief discussion, in which Mr. Swanzy, Mr. Stokes, and Mr. Benson took part, the Section adjourned.

DISUSED BURIAL-GROUNDS.—At a sitting of the Consistory Court of London, held on Monday in St. Paul's Cathedral, before the Chancellor, Dr. J. H. Tristram, Q.C., faculties were granted for the use of the burial-grounds of Holy Trinity Church, Gray's-inn-road, and of St. John's, Clerkenwell, as recreation-grounds.

Reviews and Notices of Books.

Cocaine, and its Use in Ophthalmic and General Surgery. By H. KNAPP, M.D., Professor of Ophthalmology in the Medical Department of the City of New York. With Supplementary Contributions by Drs. F. H. BOSWORTH, R. J. HALL, E. L. KEYES, H. KNAPP, and WM. M. POLK. New York and London: G. P. Putnam's Sons (the Knickerbocker Press). 1885.

The New Local Anæsthetic, Hydrochlorate of Cocaine. By LAURENCE TURNBULL, M.D., Ph.G., Aural Surgeon to Jefferson Medical College Hospital, Philadelphia. Philadelphia: P. Blakiston, Son, and Co. 1885.

IT is with much pleasure that we record the appearance of these new works on the subject of cocaine. Dr. Knapp points out that no modern remedy has been received by the profession with such general enthusiasm, none has become so rapidly popular, and few have been found to cover so extensive a field of useful application. He has collected in a convenient form almost all that has been written on the subject. He commences with a translation of Dr. Karl Köller's classical paper on the Use of Cocaine to anæsthetise the Eye, and shows that at least a fortnight before the appearance of this contribution in the *Wiener Med. Wochensch.* of Oct. 25th and Nov. 1st, American physicians were well acquainted with the substance of it. Muriate of cocaine was at that time procurable in New York, and they without a moment's delay organised a systematic research into the properties of the new anæsthetic, and managed to find out for themselves pretty well all that was known about it long before Dr. Köller's or any other European publication reached them. The first notice of the new remedy which appeared in any American paper was written by Dr. H. D. Noyes of New York, then travelling in Europe. The first original communications on the subject published in America appeared on October 18th, and were by Dr. C. R. Agnew, Dr. W. O. Moore, and Dr. J. L. Minor. The *New York Medical Record* of October 25th (issued on the 24th) contained elaborate papers by Dr. H. Knapp and Dr. D. B. St. John Roosa. The *New York Medical Journal* of the same date also contained records of cases treated by Dr. W. F. Mittendorf, Dr. E. Gruning, and Dr. D. C. Cocks. Since then hardly a week has passed without the appearance of a dozen or more papers on the subject, the results of which have been recorded and analysed by Dr. Knapp, who justly remarks that they afford a striking illustration of the enthusiasm, energy, and quickness with which the American mind seizes upon everything that is of practical importance. It must be admitted that the English reports were at first very guarded, and that some weeks elapsed before it was fully realised that we were in possession of a new and valuable local anæsthetic. "It is characteristic of conservative England," says Dr. Knapp, "that medical men were waked up to the remarkable advantages of a new remedy six weeks later than their American brethren, whereas with an equal spirit of receptiveness and progressiveness they ought to have been two weeks before them." In reply to this charge we have little or nothing to say; we simply plead guilty. At the same time it is only fair to point out that in some of the London hospitals the restrictions as to the use of new remedies—"trying experiments" it is usually called by committees of management—are so oppressive that the medical officers are precluded from doing their best for the patients under their care. In addition to Dr. Knapp's contributions, the present volume contains articles by Professor Bosworth on Cocaine in the Upper Air Passages, by Dr. R. J. Hall on Cocaine in General Surgery, by Professor Keyes on its use in Genito-urinary Affections, and by Dr. Polk on its employment in Gynæcology and Obstetrics. Dr F. P. Kinnicutt of New York,

referring to its value in the treatment of neuralgia, says:—"I have used cocaine in a number of cases of facial neuralgia with very satisfactory results. My experience coincides with Dr. Murrell's in regard to the necessary strength of solutions for external application in this affection—a 10 or 20 per cent. solution is required. I have employed oleic acid as a solvent rather than the oil of cloves recommended by Dr. Murrell. I rub in with the finger eight or ten minims of the oleate along the course of the painful nerve, with the effect of affording speedy and marked relief." An interesting case is recorded of spasmodic asthma relieved by the application of cocaine to the nasal cavities. Dr. Knapp's book is in fact full of interesting cases, and we cordially recommend it to the attention of our readers. It reflects great credit on the author.

Dr. Turnbull's work covers much the same ground, but is less comprehensive. He refers at some length to the value of oleate of cocaine in dental affections, and calls attention to the fact that the preparations in ordinary use are not nearly strong enough. Disagreeable symptoms have in some instances been recorded, but they are of little importance, and for all practical purposes cocaine is perfectly safe. Dr. Turnbull thinks that for hypodermic injection or internal use the dose should not exceed a third of a grain, or at most half a grain, but English observers have recorded the administration of larger quantities without bad effect. Dr. Turnbull's book contains much that is of interest.

The Colloquial Linguistic Faculty and its Physiological Groundwork. By W. H. WALSHE, M.D. London: John Bale and Son. 1885.

THE profession and the public are alike to be congratulated that Dr. Walshe finds time in the intervals of professional work to take up and analyse such a question as that which is treated in the little book which is the subject of this notice. A year or two since Dr. Walshe published a work on the criticism of dramatic singing, remarkable alike for its fresh originality, its deep learning, and its knowledge of the art which he so well expounded. The present work, though smaller, has the same characteristics as the former, to which it seems to us to form a fitting sequel, and we can only hope that the two may eventually be published in one volume. As a teacher of medicine, Dr. Walshe was noted for the minute and painstaking accuracy of his investigations into the cases under his care, for a marvellous acuteness of hearing when engaged in auscultation, for his lucid and elegant style of exposition, and for his flashes of incisive humour, which served to fix the attention even of the greatest dullards. Those who have benefited by the teaching of the physician will be glad to spend an hour or so with their old master, and to recognise the same power and qualities brought to bear upon a subject of the very highest importance; for is it not true, as was said we fancy by Lord Chesterfield, that "he who knows two languages is twice a man"?

Dr. Walshe believes that the real colloquial acquisition of any tongue other than the mother tongue is given to very few, and that the faculty of acquisition is extremely rare. He says:—

"In sober truth, an absolute practical and critical mastery of even the humble number of two or three languages has seemed to me, in my life's journey, a form of accomplishment of singular and in some sense unaccountable rarity. Let me, in justification, instance a pair of languages—those of England and France—countries whose inhabitants are placed in circumstances of locality and of political, commercial, and social relationship (antagonistic though it often be) tending in the strongest manner to familiarise each of the two nationalities with the language of the other. Now, to graduate as a thorough master of both tongues a man of education should be able to read Shakespeare and Corneille, Shelley and Lamartine, Moore and Béranger with a cultured native's keen intellectual and emotional perception of every shade of beauty in their lines; to seize with equal facility the uproarious fun of a burlesque at the 'Gaiety' and the double meaning of a scampish farce at the 'Palais Royal'; to follow with a like ease the eloquent exposition of a Tyndall anent the origin and destiny of man, and a poetic rhapsody at the Sorbonne by Michelet (were he still alive to electrify the historical student) on the ferocities of mediæval barbarism; to lose no single point in a chansonette by Chaumont, or a serio-comic street-arab ballad of Nelly Farren; to hold his own equally well in money disputes with the cabmen and laundresses of Paris and London; to enjoy as thoroughly the humour of *Punch* as the wit of the *Charivari*, and the grave polemics of the *Revue des Deux Mondes* as those of the *Quarterly Review;* to possess the financial vocabulary of the Bourse and of Capel-court; to speak the two tongues with at least a fair share of the intonation, inflection, vocal ring, pronunciation, accent and fluency, distinctive of a native's delivery of each; and, finally, to translate from either language into the other with correct phraseology, word collocation, and idiom, an epigrammatic article on the topics of the day, and a serious disquisition on a problem of art or literature. Now, how many men are likely to be found thus qualified on either side of the Channel? Would Mezzofanti, on these lines, have taken a bachelor's degree in any notable minority of—heaven save the mark!—his forty familiar tongues?"

That persons possessing the colloquial faculty in the degree above sketched, or in anything approaching it, are excessively rare will be at once conceded. The faculty consists, as Dr. Walshe is at great pains to show, in the fortuitous concourse in the same individual of a variety of conditions, physiological and social, and his work goes to prove that the man who has a "genius" for talking foreign tongues is born with it, and that education can add something only to the congenital faculty.

The conditions regulating the colloquial linguistic faculty are, according to Dr. Walshe, (*a*) cerebral (1, formative word-centre; 2, emission word-centre; 3, audition centre; 4, tone centre; 5, motor word-centre; 6, imitative faculty; 7, memory; 8, automatism; 9, unconscious cerebration; 10, anastomotic association); (*b*) muscular; (*c*) sensuous (organs of sight and hearing); (*d*) social (international intercourse, foreign marriage, social status); (*e*) personal, sex, age, temperament, health, heredity; (*f*) national.

Our readers will at once see how unanswerable are many of the arguments foreshadowed in the above tabular statement. But those who wish to be both instructed and amused must read the arguments as put forward by Dr. Walshe, whose book deserves to be widely read, containing as it does much important matter of practical use to many sections of the public, including physiologists, schoolmasters, and ministers of education.

Studies from the Biological Laboratory of the Johns Hopkins University, Baltimore. Edited by NEWELL MARTIN and W. K. BROOKS. Vol. ii., No. 4.

THIS number contains—1. Notes on the Development of Panopæus Sayi, by E. A. Birge, with four plates. 2. The Structure and Growth of the Shell of the Oyster, by Henry L. Osborn, with one plate. 3. The Nervous System of Porpita, by H. W. Conn and H. G. Beyer, with one plate. 4. The Presence of Ciliated Epithelium in the Human Kidney, by A. H. Tuttle, with one plate. 5. On the Effects of Variations of Arterial Pressure on the Duration of the Systole and the Diastole of the Heart-beat, by W. H. Howell and J. S. Ely, with one plate. 6. Notes on the Medusæ of Beaufort, Part ii., by W. K. Brooks, Ph.D. 7. The Action of Ethyl Alcohol upon the Dog's Heart, by H. Newell Martin and Lewis T. Stevens. 8. The Direct Influence of Gradual Variations of Temperature upon the Rate of Beat of the Dog's Heart, by H. Newell Martin. Vol. iii., No. 1:—1. H. W. Conn: Significance of the Larval Skin of Decapoda, with two plates. 2. By the same author: Life History of Thalassema. 3. Henry

L. Osborn: Of the Gill in some forms of Prosobranchiate Mollusca. Vol. iii., No. 2:—1. W. H. Howell: Notes on the Composition of the Blood and Lymph of the Slider Terrapin. 2. By the same author: The Origin of the Fibrin formed in the Coagulation of the Blood. 3. H. G. Beyer: On the Action of Carbolic Acid, Atropia, and Convallaria on the Heart, with some Observations on the Influence of oxygenated and non-oxygenated Blood, and of Blood in various degrees of Dilution, with a plate. 4. The Action of Intermittent Pressure and of Defibrinated Blood upon the Blood-vessels of the Frog and the Terrapin, by L. T. Stevens and F. S. Lee.

New Inventions.

POCKET CASES FOR HYPODERMIC MEDICATION.

THE new complete pocket case for hypodermic medication brought out by Messrs. Burroughs, Wellcome, and Co. is admirably adapted to the purposes for which it is intended. Its small compass, its compactness, its inexpensiveness, and its completeness render it an invaluable addition to the physician's armamentarium. It contains a hypodermic syringe with two sharp needles, a miniature glass pestle and mortar, and ten small tubes containing the compressed tablets of the various medicaments mostly employed in hypodermic injections. The compressed tablets, of which we have already given our judgment, are easily crushed in the little mortar, and readily dissolve in a few drops of warm water. We can testify to the ease and rapidity with which a hypodermic injection can be prepared from these compressed tablets, which are made up with sulphate of soda. In our experience the use of these tablets has not been followed by any local irritation or unpleasant effects.

ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE first annual general meeting of this Association was held on Tuesday last, at 4 P.M., at the Westminster Town Hall. The chair was taken by Dr. G. Danford Thomas, the coroner for Central Middlesex. The meeting was very numerously attended.

The CHAIRMAN, in opening the proceedings, endeavoured to show what an important part of the medical profession the Members of the Royal College of Surgeons were; they constituted the rank and file of the profession, and it was to their efforts that we owed whatever of medical reform had been brought about. Though much reform was still needed in the cause of medical education, yet this could not be accomplished without the passage of a Medical Act Amendment Bill through Parliament. Meanwhile it behoved the profession to look at home, and he considered that there was good cause for reform in the Royal College of Surgeons. The Council of the College had almost estranged the Members of the College from their *alma mater*, and he considered that by their recent action the Council had treated the members with marked discourtesy. He intimated that the Association of Members was in communication with the Privy Council, and it was certain that no new Charter would be granted to the Council of the College without the Members of the College having a voice in the matter. The Members of the College should not cease to exert themselves until they had obtained their just electoral rights. Although the projected new Charter sought to effect some reforms in the constitution of the College, yet he ventured to believe that there was need for much greater reform than that sought by the Council. The first object to be attained by this Association was the direct representation of the Members of the College on the Council; other rights would then necessarily follow. At Liverpool, on May 1st, a large number of Members of the College had held a meeting, which pledged itself to support the objects for which the Association of Members had been founded.

Mr. ASHTON ELLIS, one of the hon. secretaries, then read the first annual report of the Association. The report gave an account of the transactions which had taken place during the past year, including the causes which had given rise to the formation of the Society, and the various means which had been adopted to effect the purposes which the Association had at heart.

Dr. W. C. STEELE then read the financial report, which showed that considerable expense had already been incurred.

The CHAIRMAN proposed that the reports of the Secretaries be received and adopted.

The following list of officers for the ensuing year was proposed and accepted:—President: Dr. Robert Collum. Vice-Presidents: Mr. Joseph Smith, Dr. Danford Thomas, Mr. R. Hicks (Ramsgate), Dr. G. H. Batterbury (Wimborne), Deputy Surgeon-General E. McKellar. Hon. Secs. and Treasurers: Dr. Warwick C. Steele, Mr. J. Nield Cook, Mr. W. Ashton Ellis. Central Committee: Dr. T. Stretch Dowse, Mr. Kenneth Cornish, Dr. C. Royston, Mr. G. Brown, Dr. R. Paramore, Mr. M. G. Biggs, Dr. T. Robinson, Mr. J. Brindley James, Dr. J. W. Barron Mason, Mr. T. H. Sawtell, Dr. Joseph Rogers, Mr. F. J. Pearse, Mr. Horace Watts, Mr. W. G. Dickinson, Mr. John C. Smith, Dr. A. W. Orwin, Mr. W. Outhwaite, Mr. Maurice Clifford, Mr. A. H. Robinson.

Dr. COLLUM moved the following resolution:—"That this meeting protests vigorously against the conduct of the Council of the Royal College of Surgeons in refusing all the demands of the Members of the Royal College of Surgeons."

Mr. JOSEPH SMITH seconded the resolution, and referred to the deputation from the Association which the President and Vice-Presidents of the Royal College of Surgeons received in the early part of the year. The result of that deputation consisted in an answer but recently received, in which the Council of the Royal College of Surgeons practically refused to acquiesce in the demands of the Association. He said that it was probable that the Association of Members would go hand in hand with the Association of Fellows. He read extracts from the letter of Mr. Reginald Harrison which appeared in THE LANCET last week.

Mr. JABEZ HOGG spoke on the resolution, which was unanimously carried.

Dr. JOSEPH ROGERS proposed: "That this meeting urges that immediate steps be taken to prevent any alteration of the said Charter until it has received the general sanction of the Members, for which purpose the Privy Council be requested to receive a deputation to explain the views of the Members, supported by a petition to the House of Commons."

Mr. OUTHWAITE seconded the resolution, which was unanimously carried.

Mr. HORACE WATTS proposed the third resolution: "That this meeting considers that no alterations in the Charter of the Royal College of Surgeons should be allowed without provision being made for the due representation of the Members upon the Council."

Mr. H. T. SHAPLEY (Leamington) seconded the resolution, which was also unanimously carried.

Mr. HOPPER said that the feeling of the Members at the meeting at Liverpool coincided with that which existed at the present meeting, and the Liverpool meeting had passed resolutions to the same effect as those now adopted.

Mr. KENNETH CORNISH considered some modification should be introduced in the bye-laws respecting the mode of election of members of the Board of Examiners.

The meeting then agreed that a copy of the resolutions should be forwarded to the Council of the Royal College of Surgeons and to the Secretary of State for the Home Department.

THAMES VALLEY DRAINAGE.—The Acton Local Board has issued a communication to the various local boards of the western and northern districts of the metropolis, asking their co-operation in the carrying out of a combined drainage scheme prepared by Sir Joseph Bazalgette. The salient features, which comply as far as possible with the recommendations of the Royal Commission on Sewage Disposal, are the laying of a main collecting sewer from Chiswick to Acton, Ealing, and through Willesden, and northwards through the parishes of Leyton, Edmonton, Tottenham, and then eastwards to Barking, where the sewage will be treated before it is passed into the River Thames. The liquid sewage, after it has been chemically treated at suitably constructed works, will be filtered through a certain area of land. Some of the boards have refused to entertain the proposal, while others have promised to give it consideration.

THE LANCET.

LONDON: SATURDAY, MAY 9, 1885.

SEVERAL important meetings have taken place during the past two or three weeks in which this subject had an important place, and the progress of the movement has been one steady advance all along the line. On Monday last a conference was held between the members of the Sub-committee for Medicine of the Association for Promoting a Teaching University for London and a numerous body of delegated representatives from the London Medical Schools, and the outline of a plan for the constitution of such a University was submitted for consideration, and met with an almost unanimous reception. It will be composed of Faculties of Medicine, Science, Arts, and Laws; Boards of Studies; and a Governing Body, and to the constitution of a Faculty of Medicine, comprising all the *bonâ-fide* teachers in the medical schools, there was a cordial assent on the part of those who were present. The consideration of the constitution of the Boards of Studies and of the Governing Body was postponed to the next meeting on the 18th inst. It is expected that the faculties will elect Boards of Studies to conduct the examinations and lay down the conditions of degrees, and that the teachers will be directly and substantially represented on the Governing Body. The great defects in the constitution of the present university are, as we have pointed out, the non-existence of Boards of Studies as a medium between the teachers and the executive, and the absence of teachers on the executive, as the result of the present method of selection and nomination. These defects cannot exist by the proposed constitution on the new body, and the members of the executive will only be elected for a term of years instead of for life. It will thus be seen that the executive of the new Association has formulated a distinct and well-considered scheme, based on the experience of the older Universities, and essentially different from the present constitution of the University of London, and that such a scheme is in accord with the wishes of the teachers, and will be the basis of the reform which the University of London must prepare to grant if it is to stand in its present position as the Metropolitan University. The charge of vagueness in the aims of the Association is no longer tenable, and the name of a Teaching University is sufficiently justified by the scheme of its promoters. Whether one University is to rule education in London, or whether a rival is to be founded, will depend on the attitude of the members of the Senate of the existing institution; and as we should regret that two rival bodies should exist in London for the direction of the higher medical education and the conferring of degrees, we are glad to see that there are already some signs of a departure from the old *non possumus* on the part of the authorities of the present University. As was so ably urged by the deputation of the Metropolitan Counties Branch of the British Association, students who are well taught and of average industry should be able to obtain degrees, but for these they are obliged to leave London and reside at schools of medicine elsewhere. At the recent First M.B. Examination of the University of Durham, held at Newcastle-on-Tyne, only three students who passed had been taught locally, and the remaining twenty-nine, who came from Birmingham and the metropolis, will have to spend a year in Newcastle in order to obtain a degree, when they might pass that time in observing the greatest variety of medical and surgical practice and attending to the best clinical instruction in the kingdom by a residence in the metropolis. The reasons for the large entry of students at schools where degrees can be fairly obtained are obvious, and have but little to do with the teaching at such schools, and this is attested by such an exodus from London in the third or fourth year of studentship as that to which we have just referred. Every student is now aware that mere qualifications have not the same commercial value as a degree or title, and he will leave the best teaching if he can obtain a degree at another place. The greatest impediments to obtaining degrees in London are the non-medical examinations—viz., the Matriculation and the Preliminary Scientific M.B. Each of these requires special training, and a failure, owing to the absence of due facilities, so increases the time necessary to go through the curriculum, and the expense attendant thereon, that comparatively few, even well-informed and well-taught students, care to incur the risk. We are pleased to find that the Senate has come to a wise resolution regarding the Preliminary Scientific Examination, which should have been passed many years ago, and for which it would then have been thanked as a considerate reform, whereas now it is only supposed to have yielded to the pressure of the new movement. It has determined "that the Preliminary Scientific M.B. Examination be held twice a year; once, as at present, for Pass and Honours, in July, and once for Pass candidates only, in January." We believe that this resolution only awaits the sanction of the Home Secretary to come into force, and that students who pass in two subjects will not be re-examined in those subjects. A report by the Annual Committee to Convocation, at the meeting on the 12th inst., will give the Senate the opportunity of dividing the subjects of the Matriculation Examination in a similar manner, and we hope that it will make use of the occasion to alter the conditions of what is perhaps the most ill-judged, as well as the most stringent, preliminary examination in existence. But for the constant supervision of regulations and the guidance of the examiners, Boards of Studies are a necessity, and life-senatorships must be abolished before any real sympathy can be looked for between the students and the teachers on the one hand, and the executive on the other. Unless these reforms be forthcoming, the demands for a title or a degree by the members and licentiates of the Royal Colleges will gather strength, and we therefore welcome these suggestions of the promoters of a Teaching University, and are pleased to know that conclusions practically identical will soon be placed before the Senate of the University by the Sub-committee of the Convocation of the University. As a result of pressure from within and pressure from without, the Senate must yield to one of the most urgent educational demands of our time.

"MENE, MENE, TEKEL," is written on the walls of the council-room of the Royal College of Surgeons; but there

is apparently no DANIEL there to interpret the signs. The Fellows and Members are in revolt; but the Council, shut up in a fool's paradise, hears and sees nothing but assurances of absolute confidence and goodwill. A rude awakening may, however, be at hand. The Association of Fellows has proposed a scheme of reform which it will not sacrifice to the obstinacy or complacency of the Council; and it will be seen from the report in another column that the Association of Members has adopted even a more spirited and daring policy. Deliberately excluded from participating in the affairs of the College, and persistently ignored by the executive, the Members of the College of Surgeons have hitherto been denied and refused any corporate rights whatever beyond the payment of the fee of initiation. Numerically constituting sixteen-seventeenths of "the body politic and corporate," the Members have hitherto had no higher political status than that of *Licentiates*. For eighty-five years "THE ROYAL COLLEGE OF SURGEONS OF ENGLAND" has been the four-and-twenty gentlemen who have, by any means, succeeded in gaining admission into the Council. For forty-three years, or more than one-half of its total existence, this body of gentlemen was self-elected, and members of Council held office—which not seldom was highly lucrative—for life. This abuse was abated somewhat forty-two years ago, when the order of Fellows was instituted, from and by whom members of Council have since been elected. But the benefits that might otherwise have arisen from this extension of the franchise were craftily controlled and checked by the conditions which were imposed as to eligibility of candidates for seats in the Council and as to the mode of voting. Even under the amended Charter of the 15th of Victoria, it is provided that only Fellows who are of fourteen years' standing, and who are in practice of their profession of *surgeons*, are eligible as members of the Council; while the Charter of the 7th of Victoria provides that the voting shall be in person only. The effect of these conditions is, firstly, to render ineligible every Fellow of the College who does not practise what is called "pure surgery," and thereby to exclude all persons practising as physicians, apothecaries, or general practitioners, or who are devoted to biological science; and, secondly, to reduce the electorate to the two or three hundred Fellows who are able or willing to vote in person. Hence, practically, less than one hundred of the seventeen thousand members of the body corporate are eligible as members of Council, and of these any one may be elected into the Council by less than one hundred votes. Nor is this the worst. Once in the Council, a Member becomes henceforth and wholly irresponsible and unaccountable to those whom he nominally represents. Criticism and attempts to control the Council have been alike resented, and until within a few years many of its members lacked only the power, not the will, to make any published report of its transactions a penal breach of privilege. Under cover of its factitious sanctity the Council has perpetrated almost every form of corporate injustice and abuse. Its members have been permitted, as examiners, to appropriate one-half of the total revenue of the College; and undertakings which materially affect the status of the Fellows and Members, and alter the relations and constitution of the College, have been entered upon without even the knowledge of the Fellows and Members. For instance, the Fellows and Members were not consulted as to the wisdom, prudence, or propriety of the compact with the College of Physicians to hold a combined examination, nor have they been asked to sanction the arrangement which the Council has entered into to devote several thousands of pounds of the College funds to the erection of a building in Long-acre for the purpose of holding this conjoint examination.

Happily for the interests of medical education and practice in England, this autocratic career of selfishness, exclusiveness, and irresponsibility is nearly run. The Fellows and the Members of the College have developed active organisations for the eradication of these evils and for the effectual reform of the Council. Indeed, the danger at present is that the reaction may be too violent. It will be remembered that the Association of Fellows has recommended that *any* Fellow of ten years' standing shall be eligible as a member of the Council, whatever his sphere of practice or study, that not more than one-half of the members of the Court of Examiners shall have seats in the Council, and that no alteration shall be made in the constitution or relations of the College without the consent of the Fellows and Members. These recommendations, though unacceptable to and unaccepted by the Council, have been cordially approved by the Association of Members, and thus supported will no doubt commend themselves to the Secretary of State, to whom an appeal from the Council is about to be made. From the report of the annual meeting of the Association of Members, published in another column, it will be seen that this body is determined to extend to the utmost limit the sweep of reform, and to secure for the Members of the College direct representation upon the Council. The reasonableness and substantial justice of this endeavour cannot be called in question. It only remains for the Association to define what it believes to be the "due representation" of the Members, and to devise some scheme whereby these may be most easily and safely obtained, with the single aim and purpose of securing for the College that place in public and professional confidence and respect to which it is at present a stranger, but to which it is entitled by its importance and influence as an examining body and by the number and status of its *alumni*.

IT was in 1857 that the Royal College of Physicians first undertook the compilation of a catalogue of diseases and morbid states, for the purpose of rendering the registration of disease more precise, and it was in 1869 that the first issue of the "Nomenclature of Diseases" was made to every member of the medical profession in Great Britain and Ireland. The work was issued subject to decennial revision, and accordingly in 1880 the College took steps for prosecuting the work anew. The Joint Committee, eventually formed, included members specially familiar with different departments, and the fruit of their labours is now being distributed throughout the kingdom. Of the need and value of the work it is hardly necessary to speak; the widespread use to which the Nomenclature has already been put affords sufficient testimony on that head. Statistical tables are drawn up on its plan, systematic treatises are written within its lines, and opportunity is given for greater precision in returns than

could have been possible before. But with advancing knowledge and clearer insight into the nature and relations of morbid processes, there must of necessity be changes in terminology; and this the first revision of the Nomenclature illustrates in a striking manner. Terms that have fallen into disuse have disappeared, names of conditions which have become differentiated by more strict analysis are introduced, and the work marks the standpoint at which we have now arrived. That errors of omission may have occurred in the progress of so difficult a work is only natural, and that—as one critic has recently pointed out in our columns—there are even some errors committed is not to be wondered at; but the work as a whole represents well the most complete, and at the same time the simplest, attempt at a nosology that exists in literature.

It would scarcely be within the province of this article to analyse in detail the pages of this Nomenclature; but it may be well to indicate its general principles, and to illustrate some of its features by examples. In the first issue great pains were taken to supply a definition to each of the diseases included under the head of General Diseases. However useful such a plan might be, it had obvious disadvantages, for a precise definition of some diseases is hardly attainable. It is almost conterminous with a description Moreover, if such definitions were essential they should be applied to every section of the work, with the result that it would not only attain undue proportions, but would become a dictionary rather than a catalogue. All such definitions have therefore been rigidly excluded from the revised work; and although synonyms are freely introduced, a limit has been placed upon them wherever they have not received the sanction of a tolerably general employment. Thus, we do not find Dr. CARTER's term, "spirillum fever," placed among the synonyms of relapsing fever, although "pythogenic" is retained as a synonym for "enteric" fever. The phrase "simple continued fever" is retained with the synonym "febricula"; but this lax expression, which medicine has as yet been unable to dispense with, is guarded by a definition that leaves it as indefinite as ever. The term still figures in mortality returns, and is a standing protest against the lack of diagnostic precision, just as under the cover of "infantile remittent," typhoid fever and tuberculosis have often been concealed. Amongst the new terms introduced in the list of general diseases are "epidemic rose-rash," a rather cumbrous equivalent for the expressive German word "rötheln"; "typho-malarial fever," the modified typhoid that prevails so much in the United States and elsewhere, but is practically unknown in this country; "malarial cachexia," "myxœdema," "parangi," of which a definition would have been welcome; "leucocythæmia," unqualified by the terms "splenic" or "lymphatic"; "hæmophilia"; "idiopathic anæmia," with its synonym "pernicious"; and "glycosuria." It will be observed also that the Committee have reverted to the terms "rheumatic fever" and "rheumatism" instead of acute, subacute, and chronic rheumatism; that they employ "osteo-arthritis" in preference to "rheumatoid arthritis," and "gonorrhœal arthritis" in preference to "gonorrhœal rheumatism." In all these directions we think they will meet with approval, as also in the omission of the term "puerperal fever" from the list. This authoritative step should do a great deal towards the discrimination of puerperal disease. The enumeration of morbid processes which opens the work is a new feature, as also is the nomenclature of syphilitic and tubercular conditions, all of which are in constant use in the description of local diseases. In the appendix, are to be found lists of parasites—of course exclusive of the boundless class of fungi and bacteria, but of truly remarkable length; lists of malformations and of tumours, the latter obviously based upon VIRCHOW's classification.

Turning to the sections devoted to local diseases, one is struck by the fact that terms which were formerly current, being descriptive of symptoms rather than of the morbid states underlying them, are gradually being dropped. It will of course be very long before pathology is sufficiently advanced to enable us to give a name to every condition that is met with; and in the section on nervous disease the Committee, have decided to draw up a double list—one as it were denoting the pathological, the other the clinical, aspects of the affections met with. The section on diseases of the eye is much elaborated, and presents in several aspects—e.g., in the case of cataract—the more thorough and extensive knowledge which has been gained since the first issue of the work. Among diseases of the larynx we find "croup" retained without any qualification, and perhaps the Committee felt that it was best to leave it so than to introduce the adjective "membranous." Yet we would fain have seen this word eliminated, except in the symptomatic sense. Again, why are the terms "acute pneumonic" and "chronic pneumonic" prefixed to "phthisis"? and for what reason is it preferred to use the phrase "black induration" rather than "iron-grey induration" of the lung? or to retain "millstone-maker's phthisis," "grinder's asthma," and "miner's asthma," instead of recognising the existence of a group of diseases due to inhalation of dust, and classing silicosis, anthracosis, &c., as their varieties? There is altogether a lack of grasp in this section, or at any rate a want of appreciation of the distinctions created by modern pathological inquiry. "Acute nephritis" has been, and rightly, preferred to "acute Bright's disease," and practically the phrase "Bright's disease" is to be limited to "granular kidney." The list of surgical operations has been very much extended, and a comparison with the former edition will show how numerous have been the new operations introduced in the past decade. On the whole, we are well satisfied with the manner in which the work has been presented, and believe that it will do much to ensure accuracy in the description as well as in the registration of disease.

SELDOM have the Fellows of the Medical Society of London been more fortunate in their selection of Orator than in choosing Professor HUMPHRY, whose address on Monday last was highly appreciated. Our readers will be enabled to judge for themselves of the manner and matter of this philosophical contribution to a subject of universal interest, for Professor HUMPHRY dealt with his theme—old age—in a manner which could not but compel the attention of his whole auditory. By a most skilful use of antithesis he contrasted the natural life with the actual life as seen in Nature, and once more illustrated the truth of the statement that civilisation with its attendant sympathy defeats the

operation of the law of so-called natural selection. For, as he so powerfully sketched, in nature the victory is to the strong, and decadence is anticipated by early death from lack of ability to contend against superior force. And yet if the animal body were suffered to pass unchecked through all its physiological changes, it would be seen that the decline of life proceeds as regularly and as harmoniously as the rise towards maturity. Just as all the constituent parts and organs are evolved from the germ, and co-operate in due proportion and harmony to the sustenance of the body, so when maturity is past and the downward process of development sets in, it does so in an orderly manner, without any derangement of the same harmonious working that was essential in the time of vigour. The body fails, as a whole, just as it is built up from a mass of protoplasmic cells; and healthy old age terminates in physiological death, which may be brought about by the slightest external interference, or by the inability of the vital organs to continue any longer to labour. This ideal picture is, however, the exception, for most men die prematurely. The survival of the fittest still obtains among mankind, but in a different sense from that in which the biologist employs it. Longevity implies the continual maintenance of health—that is, the preservation of each and every part of the bodily mechanism in its due proportion. Hence it is that only those who, by inherent quality of tissue, or by freedom from exposure to external influences that act injuriously upon the frame, or by strict regulation of habits and modes of life in accordance with the capabilities of the organs of the body avert untoward influences, who can expect to attain true old age and be eventually liberated by a painless normal death. Civilisation, that has done so much to prolong life by caring for the aged and helping those who are no longer able to help themselves, has done quite as much to defeat this object by rendering humanity more liable to disease, and even by introducing disease among mankind. Nature therefore asserts her sway, and premature death is still the rule; so that, when one considers how multifarious are the ways whereby degeneration and disease may attack the body, how insidious often is their approach, and how much they are favoured by the artificial and arduous existence of a restless and laborious community, we may be thankful that, in spite of all, the ideal old age sketched by Professor HUMPHRY is not only possible, but is probably year by year becoming more likely of attainment.

Many of the facts concerning the physical characters of aged persons collected by Professor HUMPHRY, by means of the Collective Investigation Committee, are at first sight contrary to preconceived ideas. That females are longer lived than males is to be expected, but it is interesting to learn that members of a phthisical family may attain great ages; indeed, in such proportion that the assertion is warranted that "the delicacy or peculiarity, whatever it be, of constitution, which is associated with the tendency to the development of tubercle, is not only not incompatible with longevity, but is not unfrequently associated with it." One can imagine that having lived through the period at which such individuals would be most disposed to tubercular infection they have lost the liability to it, for phthisis is pre-eminently a disease of adolescence and early maturity. Professor HUMPHRY dwelt at some length upon the skeletal changes that occur with advancing years, showing that the absorptive changes which take place in the cancellous tissue, and which so predispose to fracture of the neck of the thigh-bone and determine the loosening and falling of the teeth, are combined with increased ossific deposit on the surface of the long bones, whilst in the skull there is often a great increase in thickness, determined apparently by the shrinking of the brain. The statement that the rib-cartilages retain their elasticity, and the inference that their calcification is a morbid and not a natural process, will come upon most of us as a surprise, and so also will the statements made with regard to arterial degeneration and to the other processes which have hitherto been regarded as senile. It is a remarkable fact that in 362 persons above the age of eighty, the arteries were tortuous in only 71, and that in 311 the pulse is returned as being compressible. In the male, prostatic affections are not so frequent as is generally supposed; but on this and other points it will be well to await further evidence before drawing conclusions. It is doubtless true that the aged body is far less prone to disease than the young and mature; whereas the reparative power after wounds would, according to Professor HUMPHRY, seem to be remarkably active—a fact for which we have not as yet a sufficient explanation, although, as he pointed out, the same ready tendency to heal is to be seen in subjects otherwise debilitated. In this, as in other parts of his address, Professor HUMPHRY has suggested lines of inquiry which will well repay extended and careful investigation; and we doubt not that his words will greatly stimulate others to join in the work.

Annotations.

"Ne quid nimis."

OUR TROOPS IN THE SOUDAN.

IN our last issue our Special Correspondent in the Soudan, Surgeon C. L. Cunningham, forcibly draws the attention of our military authorities to the peculiarities of the climate, and at the same time warns them of the great danger likely to be incurred by leaving our officers and men exposed to its extraordinary summer severity. In this opinion we quite concurred, and had in these pages previously drawn attention thereto. Although our representative has spoken out fearlessly, and put forth statements that appeared almost incredulous regarding the terrible temperature of the Soudan during the hot months, and under which our troops would be compelled to eke out a truly miserable existence, we were scarcely prepared to receive so early a verification of it. The graphic and startling letters just come to hand from that hot quarter tell a sad tale of mournful suffering, and go far to prove that our representative has rather under- than overstated facts as regards the rapidly-increasing temperature that sets in about the beginning of May, whilst they show that the prognostications put forth in our columns a week ago respecting the physical torture and mental suffering likely to be endured by our poor fellows when it becomes even warmer, are already, unhappily, more than fulfilled word for word, judging by that agonising appeal made publicly for relief from their protracted sufferings by

those officers who have reluctantly been compelled to pen the letters in question. Take the following as a specimen:—

"Each day is twenty-four hours of physical torture and mental suffering. Seven of our men have died of enteric fever in the last twelve days, and although we only began to form our camp here five weeks ago, we have already 150 sick here. The food is bad, and we are still in rags, as no clothing has come up yet. No one speaks, thinks, or hopes anything but to go down. Anyhow, if they do keep the troops here all the summer, none will be left worth a straw. For God's sake write about it, and get other correspondents to take it up. They are generally the best friends the troops have, and now they are gone everything is concealed, and there is no one to say a word for the soldiers. Believe me, half of us will be lunatics before long."

SMALL-POX RISKS.

WHILE some members of Parliament are trying to make themselves conspicuous by attempts to disparage vaccination, the plague of small-pox is extending its deadly work in London and some of the provincial towns in a most painful manner. Mr. Hopwood bores the authorities of the Local Government Board with attempts to find out whether a case of small-pox has not somewhere occurred after revaccination—not content with the fact that for fifty years revaccination has been protective enough to save all the *employés* of the Highgate Small-pox Hospital from an attack, excepting one unfortunate man, a temporary gardener, who refused the boon and paid for his folly with his life, and the similar experience of all the hospitals in London, not only as to the security of the revaccinated, but the almost unfailing attack of those who neglected or refused to be revaccinated. It is not necessary to pretend that revaccination is an absolute protection; but it is very nearly so. Small-pox itself does not absolutely protect from small-pox. Unreasonable people every now and again turn up who have a second or even a third attack. Good revaccination in adult life seems a much more complete protection than a previous attack of small-pox. But no sensible person would be surprised at an exceptional case of small-pox after revaccination. The broad and undoubted protection conferred by revaccination remains, and staggers the detractors of a discovery which exceeds all others in its beneficence. It is most lamentable to have to record the occurrence of small-pox in Colonel Kennedy and others of the Canadian boatmen, since their arrival in London, on their way home from services so efficient on the Nile. There is a marked increase in the admissions of cases in the hospitals of the Asylums Board. It cannot be too plainly stated that no one is safe who has not been successfully revaccinated. Revaccination that does not take is a delusion and a snare. Let no one rely on Leicester impunity. The isolation of cases in this metropolis if ever practicable, is not so now. The turn of Leicester will come some day. Meantime, every unrevaccinated person is liable to an attack of the disease.

PUBLIC LAVATORY ACCOMMODATION.

PUBLIC LAVATORY accommodation for men and women has for many years been one of the most pressing wants of the metropolis. The want is admitted on all sides, but from various causes the provisions for meeting it have been, and still are, inadequate. It is satisfactory therefore to note that the vestry of Paddington have had the matter under consideration. So long ago as March, 1884, a special committee was appointed to consider and report as to whether lavatory accommodation could not be provided in such a way as to be a boon to the immediate vicinity in which it is placed, instead of being a nuisance, as must be the case more or less where structures for this purpose are erected in the centre of public thoroughfares. The area of Paddington alone is about 1280 acres, and in 1881 the population was 107,218, and yet but for private enterprise there would not be a public convenience in the whole parish, nor sanitary accommodation of any kind for women, except in connexion with the baths and wash-houses in the Queen's-road. On the 1st inst. the committee adopted a report for presentation to the vestry, in which they recommend that each licensed victualler should be called upon to provide proper and convenient accommodation, with suitable automatic flushing cistern; that better designed structures than those at present in use should be employed, each as far as possible being in charge of an attendant; and that two new underground public lavatories should be constructed. The subject is unquestionably one of considerable importance to the community, and should the suggestions of the committee be adopted *in toto* by the vestry, something at least will have been done to remove what is a great drawback to the comfort and health of the inhabitants of the metropolis.

THE PATENT MEDICINES STAMP ACT.

THAT the Chancellor of the Exchequer should have consented to a modification almost amounting to a repeal of the Patent Medicines Stamp Act is a subject for congratulation. The news will be received with feelings of pleasure by the public in general, and by the medical profession in particular. The stamp, we are told, will be so altered as to make it clear that it affords no guarantee of the genuineness of the preparation. Medicines are in future to be regarded as taxable only if proprietary. The term "proprietary" is somewhat vague and indefinite, and will be found difficult of definition, and still more difficult of application. We have occasion from time to time to call attention to special preparations of pharmacopœial and other drugs, which are introduced by chemists as being manufactured with exceptional care, and perhaps by some new process. The use of such remedies, which are neither secret nor patent, is a distinct benefit both to doctors and patients, and it would be most undesirable to hamper the progress of knowledge and discovery by taxing improvements. It would be better to substitute for the word proprietary the term "secret." With this exception the decision of the Chancellor of the Exchequer is all that could be desired. Secret remedies should undoubtedly be heavily taxed, for their use is a fruitful source of danger.

ATROPHY OF MUSCLES IN PLEURISY.

WHEN synovitis attacks a joint, the muscles which effect the movements of the articulation are prone to waste in a rather rapid manner. The muscular atrophy cannot reasonably be explained on the ground that the muscles are not used, for the atrophy is one which recalls the wasting of muscle seen in cases of infantile palsy, not only in the rapidity with which it occurs, but also in the behaviour of the affected muscles to electrical examination. The wasting of the muscles of the shoulder and thorax on that side which has been the seat of pleurisy seems to us to belong to the same category of phenomena as the wasting of muscle from joint disease; and although the comparison is a trite one, yet we may remember that serous and synovial membranes are regarded as analogous structures. The subject of muscular atrophy resulting from inflammation of tissues in the neighbourhood of the muscles is one deserving of much attention. The most probable explanation is that the abnormal excitations proceeding from the inflamed tissues along the sensory nerves have a direct influence on the motor nerve cells controlling the nutrition of the muscles concerned; the bones may waste as the result of a similar

"reflex" influence. A valuable paper on the atrophy of muscles of the thorax and shoulder in pleurisy was contributed to the Société Médicale des Hôpitaux on April 10th (see the *Bulletins et Mémoires de la Société*, &c., April 22nd). The author of the paper, M. Desplats of Lille, contends that the muscular atrophy is rapid and frequent in the subjects of pleurisy, that the atrophy plays an important part in the deformities of the skeleton resulting from pleurisy, and that the atrophy is the indirect cause of tuberculosis of the lungs. He recommends that the atrophy should be prevented from coming on by early surgical treatment of any pleuritic effusion, and that measures should be adopted for arresting or combating the atrophy by the use of general and local stimulants, and more especially by faradisation, respiratory gymnastics, compressed air, and so forth.

THE DEATH OF PROFESSOR PANUM.

WE regret to have to record the death of Professor Panum of Copenhagen, the President of the last International Medical Congress. Professor Panum has for many years been known as one of the ablest workers in the field of medical and physiological science. His observations have been made largely in the field of scientific pathology, and he has left behind him many a mark in one of the most difficult fields of medical research. Panum exhaustively treated the subject of transfusion by physiological experiments, and in the work in which this subject was dealt with he gave an account of an elaborate series of experiments on artificial embolism of the various vessels of the body. He showed that fibrin is not necessary for resuscitation by transfusion, and that even with the greatest care it may act injuriously by clotting. His work on Embolism ranks with the classical writings of Virchow and O. Weber. Panum long ago worked at the nature of the virus of septicæmia, and came to the conclusion that it was independent of the agency of living organisms. His address on Food Rations for Man in States of Health and Disease, delivered at the International Medical Congress last year, contains valuable suggestions on the physiology of diet. Some of his latest work related to the formation of "physiological fistulæ" into the small intestine, with a view of studying the nature and properties of the intestinal juice uncontaminated with other secretions. The death of the Professor of Physiology of Copenhagen is a great loss to medical science.

FRACTURED RIBS AND SCURVY IN LUNATICS.

COMPLAINTS are made in the Russian medical press of intriguing and underhand behaviour on the part of the administrative body of the Odessa Hospital towards the medical staff. Relations seem to have been strained for several years past, for in 1879 the late Dr. Kleberg, who was principal medical officer, and his successor, Dr. Siljujanoff, both resigned their posts after a short tenure. Recently Dr. Grjasnoff, tired out by the vexatious and worrying treatment to which he was subjected, has also resigned. Dr. Andrusski, the chief of the lunatic department, has been hastily dismissed, most unjustly as it appears to the journal from which we quote, on account of fractured ribs having been found in the bodies of two of the patients who died. At the official investigation it was proved by the medical evidence that the bones in both cases were diseased, and might have been very easily broken by the pressure of the thorax on the edge of the bed. One patient had general paralysis and scurvy; the other chronic meningitis, pulmonary tuberculosis, Bright's disease, and scurvy, the whole osseous system, especially the ribs, being in both cases in a highly pathological condition. If the fractured ribs had anything at all to do with the death, it could only have somewhat accelerated the fatal issue of totally incurable diseases. Fractured ribs are sometimes found in the bodies of lunatics in this country, and explanations are usually offered depending upon the pathological condition of the osseous system of lunatics. But scurvy is not a frequent disease in English asylums. Surely the occurrence of two such cases should indicate to the Odessa hospital authorities the propriety of an investigation into the dietary scale to which the patients are subjected.

MEDICAL SOCIETY OF LONDON.

A LARGE and distinguished audience listened to the annual oration of the Medical Society of London, delivered by Professor Humphry, F.R.S., on Monday last. The oration, which will be found in full in another place, was frequently applauded. Sir Joseph Fayrer proposed, and Mr. Arthur E. Durham seconded, the vote of thanks which was heartily accorded to Professor Humphry. Dr. W. Miller Ord, the President, expressed the wish of the Society that the oration should be published in separate form. The conversazione was enlivened by the exhibition of many objects of interest, including water-colour drawings, wood-carvings, Japanese books and prints, old medical works from the library of the Society, autotypes, etchings and engravings, microtomes and microscopes, whilst the band discoursed the lively airs of many a well-known dance. It must be owned that with its annual dinner and conversazione the Medical Society of London serves in addition to its other functions, the useful and pleasing purpose of bringing together the diverse elements of which the medical profession is composed.

PHTHISIS IN THE ARMY.

THE mortality of soldiers from phthisis is just now attracting some attention, and has been the subject of many random statements. The Army Medical Report for 1882 gives the mortality from "tuberculous diseases" among the troops serving in the United Kingdom during that year "as equal to 2·00 per 1000 of the average strength, against a mean rate of 2·33 in the preceding three years. The *United Service Gazette* compares this rate among soldiers with the rate among the entire population of England and Wales, during the same year, which was 1·84 per 1000, adding that, having regard to the favourable sanitary conditions of the army, the rate should rather be compared with that prevailing in some of the healthy districts of England—for instance with 1·17 in Rutlandshire, 1·31 in Leicestershire, and 1·33 in Hertfordshire. Our contemporary admits that for exact statistical comparison these figures are open to criticism; the amount of fallacy involved, however, by such a comparison can lead to but one conclusion—namely, that no such comparison should have been made. The incidence of phthisis mortality upon males of different ages varies from 0·41 per 1000 between five and fifteen years to 4·12 between thirty-five and forty-five years. To compare, therefore, the mortality of soldiers from phthisis with that prevailing in the entire English population, male and female and at all ages, is worse than useless. The mean annual death-rate from phthisis among males in England and Wales aged from twenty to forty-five years during the ten years 1871 to 1880 was equal to 3·68 per 1000, which is not far short of double the rate that prevailed in 1882 among the soldiers serving in the United Kingdom. We are very far from asserting that the comparison of the death-rate of soldiers from phthisis with that of all males living at similar ages is by any means free from objection. If we accept the deaths from tubercular diseases in the army, as signifying the deaths from phthisis, there is still the source of error due to discharges on account of disease to be dealt with. On the other hand, we are scarcely inclined to accept our con-

temporary's favourable estimate of the healthy conditions of a soldier's life. Soldiers are in a certain sense selected men, but the habits of too large a proportion of our soldiers are, we fear, not unlikely to develop phthisical tendencies; and under present circumstances it would not be surprising to find them suffering from a death-rate from phthisis as high as the mean rate among males at the same ages in the general population. It is to be regretted that the statistics of the Army Medical Report are not sufficiently precise to render possible the calculation of the true death-rate from phthisis among soldiers, but we see nothing in the figures given to justify the alarm of the *United Service Gazette*.

STATE SANITARY SURVEY IN ILLINOIS.

THE Secretary of the Illinois State Board of Health has issued a circular, in which he points out that whenever cholera has prevailed as an epidemic in Europe it has eventually reached the United States, and has caused great havoc there. Until quite recently there was little or no sanitary organisation in Illinois, and this, coupled with the fact of the unrestricted immigration, places the State in a condition favourable to the reception of cholera. Under these circumstances, municipalities, communities, and individuals are urged to see that their surroundings are wholesome, and forms have been prepared with a view of facilitating the needed inspections on which the required action must be based. The survey proposed is different from the one now being undertaken in this country. Here, the inspectors of the State make cursory inspections with a view of stimulating local action; but in Illinois it is expected that the inspections shall be altogether carried out by local officers, and take the form of a house-to-house inspection. The forms on which the information acquired is to be filled in are extremely useful, and the preparation of a ground plan, with lines at intervals indicating a scale of feet, will be most helpful in enabling the local inspectors rapidly to draw trustworthy plans of houses and other premises. Dr. Rauch in his circular does not fail to point out that to which prominence has also been given by Dr. Buchanan in this country—namely, that even should cholera not reach the country to which the inspections relate, the work advocated will, if properly carried out, go far to save the State from many other diseases which are allied to cholera in so far as the conditions causing them are concerned.

STRANGULATED HERNIA.

AN inquest was held at Stockport on April 25th touching the death of a woman named Elizabeth Jackson, aged forty-two. From the evidence it appears that for some years deceased had suffered from an umbilical hernia, which had from time to time given her some trouble owing to its becoming obstructed. On April 11th Mr. Gardener, a graduate of the University of Bonn, practising at Partwood, was called in, and he continued in attendance until April 18th. On the latter day the woman was seen by Mr. Buist, assistant house-surgeon of the Stockport Infirmary, and this gentleman diagnosed strangulation of the rupture, and gave the patient "medicine which was intended to set the bowel at rest," as he did not think it safe to reduce it at that time. Death occurred on April 22nd, without relief to the symptoms, although Mr. Buist says he performed taxis successfully on the Monday before the patient died. At the inquest Mr. Buist seemed inclined to join issue with Mr. Gardener, both as regards the exact nature of the malady and its appropriate treatment. In the absence of any record of a post-mortem examination, it seems to us that there can be little doubt that the deceased had obstruction of the prolapsed bowel, and that this passed on to complete strangulation, for the history of the case relates what comes too frequently within the experience of hospital surgeons. We cannot quite understand why Mr. Buist should desire to censure Mr. Gardener for not recognising that the bowel was strangulated, as evidenced by the continued stercoraceous vomiting, and yet not take the steps to relieve that strangulation by the only rational means which he himself contended ought to have been adopted. Mr. Buist's own evidence and the questions he put to Mr. Gardener are inconsistent with one another. It may be, however, that we are not correctly informed on this head. One thing is certain, if the symptoms and signs were as manifest as they were described to be, neither medicine in the earlier, nor taxis in the later, stages was likely to avail much. It cannot be too strongly insisted on that the danger is not from operating too early, but not early enough. It is not altogether improbable that the taxis, as performed by Mr. Buist, was accompanied by rupture of softened gangrenous bowel, and that what appeared a satisfactory event was, in all truth, a fatal calamity. It is but just to Mr. Buist to say that he clearly recognised the condition of the patient; and further, that even had herniotomy been performed when he first saw the case, the prognosis would still have been grave to a degree. It may be useful here to draw attention to a fact of paramount importance—viz., that a hernia which for several hours has given rise to acute local and reflex symptoms should be subjected to the most careful examination and prompt efficient treatment. If we mistake not, many a student leaves our medical schools without having ever seen, from its incidence to its close, a case of acute strangulated hernia. This we mention, not by way of reproof, but with a hope that our hospital surgeons will endeavour, by all the means in their power, to give facilities to the general run of pupils to investigate for themselves the phenomena of hernia, and the accidents to which it is liable.

PUBLIC SCHOOL POLICE.

THE approval which greeted Sir William Harcourt's announcement in the House of Commons that he had directed an inquiry to be made by the Public Prosecutor into the fatal case of "bullying" at King's College was an expression of a very general mistrust in the management of our public schools. We have from time to time called attention in our columns to a growing dissatisfaction on the part of those most interested in the development of our public school system. The prospect of little boys of twelve years of age mingling freely with other boys of various ages up to eighteen or nineteen, often much to the injury, physically and morally, of all, is far from satisfactory. Parents scarcely at present realise the terrorism so aptly referred to by the Home Secretary which the bigger boys exercise over the smaller and weaker. We should be glad if we could think that the association of little boys with bigger had its worst phase in the exercise of "terrorism," for, unfortunately, we know too well that there is a "social evil" in this association which parents, as a rule, shrink from realising. It is only too well known in the medical profession that the ruin of many a little boy may be traced to the evil influences of immoral bigger boys. We know of no "social evil" which has been so unsuccessfully dealt with. Important as the suppression of "bullying" is, it sinks into insignificance in comparison with the larger question of the moral relations between big and little boys in unrestrained intercourse. The governing authorities of our schools, as a rule, meet three or four times a year. The most they do is to express approval or disapproval of some prominent subject brought under their notice by the head master. It is seldom that they are minutely acquainted with the working of the school. The more distinguished they are socially, the less useful are they as governors. It was once publicly remarked by the late Archbishop of Canterbury that his experience as

school-master and governor taught him that the highest function of a school governor was to learn not to interfere with the head master. Thus the head master, in reality, becomes responsible for the educational, physical, social, and moral relations of the hundreds of boys committed to his charge. Many of these boys pass through his school, if a large one, scarcely known to him either in name or person. His influence over them is, in reality, very small. It rests chiefly with the assistant masters and tutors to guide boys aright; and their intercourse with them out of class, where most danger prevails, is very limited. It would be unreasonable to expect men worn out by six or eight hours' class work a day, to say nothing of the additional labour of looking over exercises and conducting correspondence, to discharge the duty of a kind of "police." Yet some system of school police is a growing necessity to keep in check the too free secret intercourse between big and little boys, and suppress the great "social evil" of our public schools.

EXCISION OF THE PYLORUS.

AT a recent meeting of the Hamburg Medical Society (*Deutsch Med. Woch.*, No. 17) Dr. Lauenstein reported a successful case of excision of the pylorus, and exhibited the patient, a sailor, thirty-four years of age. The portion removed, which was the seat of colloid cancer, measured eleven centimetres long, with a circumference at its gastric end of twenty-six centimetres. The patient was admitted into hospital on Dec. 20th, 1884, having suffered for several months from vomiting, and having lost about forty pounds weight. A moderately large, slightly mobile tumour was present in the epigastrium, but the stomach was not notably dilated. The stomach was thoroughly washed out before operating. The incision was made in the median line, and the pylorus, after being separated from the great and small omenta, was marked off from the duodenum, which was temporarily ligatured. Some adhesions of the posterior wall of the stomach were detached, and the segment extirpated according to the usual method. There was no disease of the glands in the vicinity. The abdominal cavity was closed after washing out with boracic solution, and the whole operation lasted two hours and a half. Recovery was rapid, and in about a fortnight solid food was given by the mouth. On the nineteenth day the patient had an attack of herpes, with fever and bronchial catarrh, but at the close of the third week he was able to leave his bed, and had an "enormous" appetite. The author remarked that during the past two years the results of this operation had been more favourable, and there was reason to hope that, by improvement in its method, a still greater reduction in the mortality would be attained.

THE LEWES LUNACY CASE.

WE entirely agree with Lord Coleridge that the so-called "examination" of Mr. Hillman was a farce. It is not, of course, for us to offer an opinion as to the *legality* of the examination conducted by the magistrates in this case. It may be that the Lord Chief Justice is wrong and that Sir James Hannen and Lord Justice Lindley are right. Perhaps the law may be satisfied by the fact of two magistrates looking into a carriage at an alleged lunatic already in custody, while he is actually on his way to an asylum, and after a couple of commonplace questions, such as "How are you?" signing an order for his consignment to the asylum, to which, as a matter of fact, he was then being forcibly taken. We say it *may* be that the law is satisfied with such a procedure; but if it be, we must be excused for adding, so much the worse for the law. We fail to see any difference, except in degree, between such a proceeding as that which took place in this case, and the fact of a judge—for convenience, to avoid taking a person out of the prison van—looking into that vehicle, and after asking the accused some ridiculous questions, sentencing him to prison and telling the coachman to drive on. If this is the way in which justice is to be administered, it ought to be generally understood. For ourselves, we can only say that anything more slipshod or ridiculous than this case throughout we cannot imagine. It is certainly high time a Lunacy Law Amendment Bill were passed; but this case ought to be a warning to the promoters of such a measure to see that provisions are incorporated to ensure that the justices, to whom so much more than has heretofore been left is to be now confided, may be compelled to discharge their duties efficiently. It must be assumed that no one does right, unless to leave right undone, not less than to do wrong, be illegal.

THE BUDGET.

WE must content ourselves with one or two plain criticisms of the proposals of the Chancellor of the Exchequer, leaving minute criticisms to financial authorities. First, we cannot but deplore that under a Ministry so professedly peaceful such an enormous Budget should have become necessary. No more striking proof could be afforded that statesmanship does not consist in passing mere Franchise and Ballot Bills, but in skilful recognition of the wide relations of the Empire and its corresponding risks. Next we must protest against the rough process by which the income-tax is applied to those whose income represents labour, and is precarious compared with those whose income is assured and arising from accumulated property. We approve of the higher taxation of spirits and beer. The amount of both of these articles consumed by the British public is disgraceful and disastrous, and any taxation which will reduce the amount will tend to diminish the disease and misery which come from drunkenness.

HEALTH OF CAVALRY HORSES.

The Report by Mr. Fleming, Principal Veterinary Surgeon to the Army, on the Health of the Horses serving in the United Kingdom during the year 1884, shows very satisfactory results. The average strength on the establishment was 12,054, the cases of disease and injury during the year were 7431, the deaths including horses destroyed were 207, and the number cast was 1272, being respectively in the proportion of 616 cases, 17·17 deaths, and 105·6 cast per 1000 of the strength. The sickness and mortality have been lower than in any of the three preceding years, and the casting lower than in any except 1881, when it amounted only to 93·8 per 1000. A striking feature in the returns is the almost complete absence of glanders and farcy, only one case of the former and none of the latter having occurred during the year. The case of glanders was in the 3rd Hussars at Hounslow, in which eight cases had occurred in the preceding year. Mr. Fleming remarks that "this is the last of the outbreak which took place in that regiment while it was stationed at Aldershot, the infection which led to the outbreak having been caught, in all likelihood, in billet stations in the East of London (where the disease always more or less prevails) while the regiment was on the march from Colchester to Aldershot in 1883." He apparently has forgotten that the disease "was contracted from an officer's charger which became infected at Alresford." The measures adopted in the army to stamp out this disease appear to have been attended with marked success. Accidents and injuries have been the most frequent cause of admission into the infirmary, and account for rather more than half of all the cases. Diseases of the digestive organs have been the most fatal class, enteritis being the most prominent disease, but those of the respiratory apparatus have been very nearly as fatal.

The most frequent cause of casting was old age, upwards of one-half of the cases being on that account; the average length of service of the horses so cast was thirteen years and a half. The highest proportion of admissions into the infirmary occurred among the four-year-old horses, a result probably of the number of new horses brought into the service at that age and of the consequent change of work and feeding. The death-rate was also highest among them and the five-year olds until the age of fifteen was reached, when it began to increase rapidly. There were 1274 horses purchased during the year at an average price, including expenses of journey, of £44 6s. 10d., and there were 1189 cast and sold at an average of £11 5s. 2½d. We are glad to observe that Mr. Fleming has added to the value of his annual return by prefixing to it a report on several points which appear likely to be useful and instructive. We would suggest to him that an additional table, showing the average loss of time by sickness or injury—the mean daily sick of the horses,—would add much to the value of his returns. We sincerely congratulate him on the satisfactory state of the department over which he presides, as shown by the interesting tables in his report.

COCAINE IN EYE OPERATIONS IN ST. PETERSBURG.

DR. LANGE of St. Petersburg has extirpated two eyes under cocaine. He not only applied a 20 per cent. solution to the conjunctiva before the operation, but had it dropped on during the whole procedure. In one case complete anæsthesia was induced, the patient feeling no pain during the section of the ciliary or optic nerves. In the second case there was throughout considerable flinching on the part of the patient, due perhaps to mental reaction, as the eye preserved the power of vision, and was being removed for an injury. Dr. Lange has also performed an operation on the eyelids, applying previously an ointment of cocaine with vaseline, and after each cut a solution. The pain was very slight. The patient wished to have the other lid operated on without cocaine, but the suffering was so great that the drug had to be employed.

THE INTERNATIONAL INVENTIONS EXHIBITION.

ON Monday last, at noon, the Inventions Exhibition, the third of the series held at South Kensington, was formally declared opened by the President, the Prince of Wales. The opening ceremony took place in the conservatory, in the presence of the Princess of Wales, the Princesses Louise, Victoria, and Maud of Wales, the Duke and Duchess of Edinburgh, Prince and Princess Christian, the Duke of Cambridge, and a large and distinguished company of visitors. Sir Frederick Bramwell, as Chairman of the Executive Council appointed to organise and carry out the Exhibition, welcomed his Royal Highness within its walls, and delivered an address briefly reporting upon the labours of the Council up to the time of opening. He publicly expressed to the contributors to the guarantee fund the sincere thanks of the Council, stating that, instead of £50,000 which had been contemplated as the amount that might be raised, more than £87,000 had now been guaranteed, and that this total is being augmented week by week. He pointed out that considerable additions had been made to the Exhibition buildings. Many small annexes had been swept away, and in their place spacious galleries had been erected. Not only had greater exhibiting space been thus obtained, but the gardens, which are so great a source of attraction to visitors, had actually been enlarged. He said that as the employment of electricity for the purposes of lighting was undoubtedly one of the most striking instances of the application of science to the purposes of daily life, special prominence had been given to the subject. The incandescent electric lamp was to be employed for the garden illumination in a manner and on a scale which, the executive believed, had never before been attempted. With regard to the "music" division of the Exhibition, he stated that, with a view of stimulating the love of music in this country, a series of choral and brass band competitions were being organised, and would be held in the Royal Albert Hall during the autumn. His Royal Highness, in his reply, expressed his wish that the efforts of the Council would be rewarded by a success as great as that which attended the previous two exhibitions. He then declared the Exhibition open. We think there can be little doubt that the Prince's wish will be fully gratified. Although much remains still to be done, there is ample evidence of the interesting and widely varied nature of the exhibits included in the divisions "Inventions" and "Music;" the latter will indeed probably render the illuminated gardens, already in themselves on a hot summer's evening sufficiently attractive, peculiarly appropriate and additionally popular, forming as it does one of the *raisons d'être* of the Exhibition. The subway from South Kensington Station is a decided success, and will not only add to the comfort of visitors, but will remove a source of annoyance to inhabitants of the district.

THE PREVENTION OF YELLOW FEVER.

DR. DOMINGOS FREIRE, in a recent communication to the *Rio News*, gives an account of the inoculations practised in Rio de Janeiro with the attenuated liquid culture as a prevention against the dangers of contracting yellow fever. From Dec. 22nd last up to March 22nd of the present year, 1109 persons of different nationalities, and whose ages ranged from one month to sixty years, were submitted to subcutaneous injections in the deltoid region of the arm with the said liquid. All, with the exception of one or two cases, experienced elevations of temperature, varying from 37½° C. to 40° C., frontal headache, pains in the articulations, general indisposition, and, in some, slight epigastric oppression,—symptoms which ceased after from twenty to forty hours, and without any medical intervention. In many cases these injections were practised in houses where, a few hours before, deaths had taken place from yellow fever; nevertheless in the cases specified, and under disadvantageous hygienic circumstances, not one single serious accident is said to have happened. Most of the inoculations were performed in the presence of the two medical men commissioned by the Spanish Government to specially study yellow fever in Brazil.

KINDNESS TO ANIMALS.

THE celebration of May-day in London seems likely to take a new and very sensible form. It has long been the custom in some provincial towns, we believe, to hold an annual procession of cart-horses on May 1st, and this year the metropolis has made an effort in the same direction. We say an effort, because probably for want of organisation and publicity only about one hundred teams attended this May-day parade on the Thames Embankment. It is stated that there were no prizes, and therefore no competition; but each driver received an illuminated card commemorative of the gathering, acknowledging the evidence afforded of "care, attention, and kindness to animals." It is with this feature of the show that we are mainly concerned, and we trust that next year the idea may be carried out on a larger scale, and that prizes may be given to encourage kindness to animals. In this connexion we would repeat a suggestion we have already made, that prizes for kindness should be offered at the various cattle, horse, and agricultural shows throughout the kingdom. At Chobham, in Surrey, a prize

of this sort, which is given annually, has been very successful. "Want of thought" is responsible for much evil, and such prizes would be the means of doing a great deal of good.

UNIVERSITY OF LONDON.

THE following important change in the examination for the degree of Doctor of Science is announced in the new Calendar of the London University:—The existing syllabus of the D.Sc. Examination with its division into sixteen branches is withdrawn. Any Bachelor of Science desiring to proceed to the degree of Doctor of Science shall be required to submit an original essay, dissertation, or thesis as the foundation of his qualification for the Doctorate. If the thesis be accepted, the candidate shall be examined upon the subject-matter thereof, and in such further cognate subjects as in the opinion of the examiners may appear necessary to test his knowledge of the branch of science which he professes. The examination for the degree of Doctor of Science shall take place annually within the first twenty-one days in June.

MEDICO-LEGAL ASPECTS OF THE LATE EXPLOSION AT THE ADMIRALTY.

THE conclusion which has been arrived at as to the position of the gentleman who was injured by the explosion is as follows. He was probably about to leave the office and had partly risen from his chair, placing his hands on the desk in front to assist himself, when, hearing a noise, he turned sharply to the left in the direction of the cupboard. The scalp wounds, all in the anterior part of the scalp, were in a line from before backwards, and from left to right. The large wound of the left conjunctiva, caused by a splinter, which was removed soon after the explosion, was from without inwards in the direction of the lacrymal bone, and was unaccompanied by wound or injury of the eyelids. The backs of both hands, also the inner side of the left and the outer side of the right, were dotted with grains of gunpowder; the scalp was extensively dotted in the same manner, chiefly over the left frontal region; the hair, eyebrows, and eyelashes were singed. The patient was found lying near the cupboard, with his head in that direction, and not towards the right in the direction of the force applied.

TRICHINOSIS IN ST. PETERSBURG.

A CASE of trichinosis has recently occurred in St. Petersburg. A gentleman named Von Bach and his guests were infected by ham. Altogether about twenty persons suffered. The occurrence has produced some alarm, and the trade in pig-meat has sensibly diminished. It is, however, gratifying to note that this seems to have been the only case of the kind occurring in St. Petersburg for some years past. The immunity is due to the establishment by the municipal council of institutions where pork and ham are carefully examined. The first of these was established in 1881, but was not very successful; as during the first five months only five carcases and 133 hams were offered for examination, notwithstanding the smallness of the fees charged and the certainty of an indemnity at market price in case trichinæ were found. In May, 1882, a different system was established, and during the next twelve months no less than 30,000 examinations took place, requiring the services of two veterinary surgeons and about a dozen assistants. Afterwards branch institutions were established, some of them by the traders themselves, and microscopical examinations systematically carried out. Last year there were examined 30,650 carcases, 2362 hams, 18 portions, and 11 wild boars. Those free from trichinæ are marked, all infected meat being destroyed. An interesting engraving of the chief institution is given in a Russian illustrated journal, in which a number of young women are represented seated at a table each with a microscope before her.

THE MEDWAY GUARDIANS AND THE LUNACY LAWS.

THE subject of the Lunacy Laws has been under discussion by the Medway Board of Guardians, who propose to memorialise the Local Government Board on the subject, suggesting that "all cases which come under the relieving officer's notice should be certified to by the medical officer and then removed to the workhouse for a period not exceeding fourteen days, when they could be taken before a magistrate who could order chronic harmless cases to the workhouse and others to the asylum." Dr. Buchanan said they had recently had a case in point. Mr. Athawes had to hold a court on Sunday to make an order for the removal of a woman to the asylum; this patient, until the recent decision, would have been temporarily removed to the workhouse. The woman had to be taken to the police-station and placed in a cell, after having attempted to strangle one of her children. Other parochial authorities also have had the matter under consideration, and the Whitechapel guardians have adopted a petition to the House of Lords on the subject.

MEDICAL MISSIONARIES.

WE learn from the *Church Missionary Intelligencer* that Dr. E. Downes has decided not to return to his former charge of the Mission Hospital in Kashmir. The committee accepted his resignation with regret, and placed on record their appreciation of his valuable services. They have recently accepted the offers of Mr. F. J. Harpur, B.A., M.B., B.Ch., of Trinity College, Dublin, and of Mr. Henry Martyn Sutton, M.R.C.S., L.R.C.P., L.S.A., for service as medical missionaries.

MILITIA SURGEONS.

WE would again draw the attention of the militia surgeons to the fact that Sir E. Wilmot's motion to refer their case to a Select Committee of the House is fixed for May 19th (Tuesday); and we would urge on every militia surgeon to use his influence to obtain members from both sides of the House to support the motion, which is not a party one.

THE municipal authorities of St. Petersburg and Moscow have had under consideration the measures to be adopted in case of the appearance of cholera. The St. Petersburg town council has given the town sanitary commission a credit amounting to 30,000 roubles for preventive measures, erection of cholera hospitals, &c. The Moscow council has voted 98,000 roubles for a similar purpose. Both the municipal councils have agreed to petition the treasury for assistance to the extent of 300,000 roubles in case a cholera epidemic should make a larger outlay requisite.

THE International Cholera Conference will open in Rome on the 15th inst., when it is expected that the delegates of the British and Indian Governments—namely, Sir W. Guyer Hunter, M.D., K.C.M.G., and Dr. Thorne Thorne on behalf of this country; and Sir Joseph Fayrer, M.D., K.C.S.I., and Surgeon-Major Timothy Lewis for the Indian Government—will be present.

THE Caucasian Medical Society has made Dr. Hoyer, Professor of Histology, Embryology, and Comparative Anatomy in the University of Warsaw, an honorary member in recognition of his services to science.

DR. DIOMEDE PANTALEONI, Senator of the Italian Kingdom, one of the leading members of the Academy of Medicine of Rome, and for many years a physician in high repute with the Anglo-American Colony in the city, died there, at an advanced age, on Sunday the 3rd inst. We hope to give next week some account of his career.

ACTING on the suggestion of Mr. J. Mills, the inspector of cattle disease for Madras, the Government of India some time ago decided to test the efficacy of M. Pasteur's vaccine for the protection of animals against anthrax. From official papers recently published, it would seem that the results have been satisfactory.

BY an advertisement in our present issue it will be seen that the courses of clinical lectures for the summer session, to be delivered at the Hospital for Sick Children, Great Ormond-street, by the physicians and surgeons of the institution, will be commenced next week.

AT a meeting of the Cork County Club held last Monday, Dr. Charles Tanner, for his conduct during the recent visit of the Prince of Wales, was expelled from the membership of the Club. Ninety-one members voted, and of these eighty-nine were for his expulsion.

THE Master of the Rolls has dismissed the appeal in the case of Hugall *v.* M'Kean, an action brought against a landlord for an alleged breach of covenant to keep drains in good order, in which judgment for the defendant had been entered by Mr. Justice Wills.

A CONFERENCE upon cholera was to meet at Berlin on Monday last, and Professor Pettenkofer was expected to attend. We have not yet received the reports of the meeting, at which, doubtless, Professor Koch will have detailed his recent researches.

THE Italian Prime Minister has given an emphatic denial to the statement that there had been two cases of Asiatic cholera at Rome.

DR. ROBERT KOCH has been nominated Professor of Hygiene at the University of Berlin.

LUNATICS IN WORKHOUSES.

AT a meeting of the Council of the Poor-law Medical Officers' Association, held at 3, Bolt-court, Fleet-street, on Tuesday, the 5th inst., certain of the clauses of the Lunacy Law Amendment Bill, now under consideration in the House of Lords, were passed in review, and considered in their bearing on the duties and interests of workhouse medical officers, especially Clause 10 and Sections 1 to 7. Sections 1, 2, and 3 provide that an alleged lunatic may be kept in a workhouse for fourteen days from its date by a certificate, containing the usual proviso, from the medical officer, and drawn according to Form 8 in the schedule. Section 4 provides that no person shall be detained in a workhouse as a lunatic for more than fourteen days, without an order under the hand of a justice of the peace having jurisdiction in the union where the workhouse is placed, which shall be drawn according to Form 9 in the schedule. The Council feel that this section will be found to be cumbrous and unworkable. Section 5 provides that the order is to be made on the application of the relieving officer, supported by a medical certificate according to Form 6 in the schedule under the hand of a duly qualified medical practitioner, *not being an officer of the workhouse*, and by the certificate under the hand of the medical officer of the workhouse drawn on Form 8 in the schedule. The Council holds that this is a gratuitous affront to and reflection on the medical officer, as he is to have the care and custody of the lunatic for fourteen days—it may be for more,—and then some medical man from outside is to step in, fill up the certificate, and be paid the fee, to the entire exclusion of the workhouse medical officer, who, in some workhouses, will sustain a very considerable diminution of the income he has hitherto derived from this source. Section 6 provides that when an alleged lunatic is in a workhouse, and the medical officer thereof has not signed such certificate as in this section is mentioned, or if at or before the expiration of fourteen days from the date of the certificate an order is not made under the hand of the justice for the detention of the lunatic in the workhouse, the medical officer shall give notice in writing to the relieving officer to take the requisite measures for the removal of the lunatic to an asylum; and by Section 7 it is decreed that, if he omits to give such notice, then for every day or part of a day he is in default he shall forfeit the sum of £10. It will be noticed that under the provisions of this clause every case, whether lunatic, idiot, or imbecile, now kept in the workhouse, must be notified by the medical officer, taken before a justice of the peace, and decided upon, not by the official, who knows all about him from daily observation, but by an absolute outsider, to the prejudice of the workhouse medical officer, and at an unnecessary cost to the guardians, who will be called on to pay a fee in each case; and as in many workhouses there are from 50 to 100 of such cases, the expense will be considerable. The Council feel that this Bill is framed in the harshest, most unjust, and most ungenerous spirit towards workhouse medical officers, and therefore earnestly calls on all such officers to use whatever influence they may possess to prevent this clause of the Bill from becoming law.

Signed on the part of the Council.

JOSEPH ROGERS, Chairman,
May 6th, 1885. J. W. BARNES, Hon. Sec.

RUSSIAN OPINIONS ON ANTIPYRIN.

AT a recent meeting of the St. Petersburg Medical Society, Dr. Grimm related a case of severe Erysipelas in which he used Antipyrin three times. The first time the remedy was successful and effected a cure in three hours; the second time no effect was produced; the third time, though nausea was produced, the cure was effectual. He gave a gramme three times hourly.—Dr. Barthel stated that in the clinical hospital generally five grammes were ordered (two, two, and one, at intervals of an hour), and with good results. Collapse had never been caused, and nausea but seldom; never vomiting or rigors on a rise of temperature.—Dr. Hinze confirmed this from his experience in a series of cases of erysipelas.—Dr. Moritz had used antipyrin largely both in the Clinical Hospital and in the Alexander Male Hospital. Besides typhus cases, where the remedy was not well borne, he had given it for three or four weeks in a case of acute joint rheumatism in which salicylic acid was useless; the quantity of antipyrin given was about four grammes per diem. The effects were prompt and satisfactory, reducing the fever with perspiration, without any nausea. It was worth remarking that intelligent patients observed that the taste of the remedy varied a good deal, so that the preparations were evidently not all alike. This might, perhaps, explain the different effects observed by Dr. Grimm in his case. Dr. Moritz had used antipyrin in pneumonia, but could not say that the course of this disease was shortened by its means.—Dr. Börling had seen antipyrin used in Strasburg in typhus and pneumonia, and had employed it himself in private practice with good results, especially in a case of abdominal typhus in a child of five years of age. The temperature fell after the first series of three doses (double as many grains as the child's age in years, so in this case ten grains). After the second series it fell to 36·5°, and remained for two days below 38°. As soon as it rose to 39° the antipyrin was again given. The illness lasted about three weeks. The child recovered. Dr. Börling generally gave the drug in syrup, and found children liked it in this way. —Dr. von Grünewald had used antipyrin often, but had several times seen vomiting produced.—Dr. Hüber confirmed Dr. Moritz's observation that antipyrin, like other antipyretic remedies, though capable of reducing temperature in a longer or shorter time, did not shorten the course of diseases.

OUR WAR CORRESPONDENT'S EXPERIENCES IN THE SOUDAN.

(*Concluded from page 818.*)

THE days a correspondent spends out in the Soudan are by no means dull. There are few hours, indeed, in which a man keen for inquiry cannot somehow or other find material in which to interest himself, or those on whose behalf he is acting. A visit to the town of Sawakin on one occasion—a sort of by-day—repaid me well for the trouble in doing so. It had been blowing strongly from the N.N.W. since daylight on the date in question, and raising such a dust-storm over the plain, camp, and shipping in harbour that everything a few yards distant was periodically quite hidden from view, and military movements had in consequence to be suspended for a time, whilst those who were on shore, and were unfortunate enough to be living in tents on the border of this extensive sand desert, had not only their nostrils, eyes, and ears filled with fine gritty particles of sand, but their hands were kept pretty busy in brushing off the yellow-coloured dust from articles of diet, as well as that quantity that had collected to the depth of half an inch or more on their bedsteads, their seats, accoutrements and saddles, and other tent belongings. To the poor sick and wounded this dust-storm proved irksome and distressing to a degree. Towards four o'clock, however, on the wind lessening in force and shifting more easterly, a subsidence of the disagreeables took place. People then could both see and breathe better than they could an hour earlier, and by five o'clock, with a little extra brushing up, matters had smoothed a bit and settled down to their normal condition.

Mr. Walter Truscott, the energetic representative of the *Pictorial World*, and myself, in company, determined to pay the Arabian quarters in the town of Sawakin a visit, and landing in the cool of the afternoon close to a large building now in the possession of and occupied by a number of our marines, we went in search of some of the lions of this town. Now, to judge by the numbers of friendly Arabs we met in passing from street to street (if these irregular and tortuous by-ways deserve such an appellation), as well as the unmolested character of our peregrinations, one could scarcely realise that at that very moment perhaps a desperate fight was being waged, and not very far off either, between our troops and these lithe-limbed fellows' kinsmen. Moreover, on passing from store to store, from stall to stall, and seeing the brisk business carried on by the squatting, cross-legged date-sellers, the jabbering fish-vendors, &c., it was evident to me that there were at least some sensible followers of Mahomet who did not up to the present believe in the glory of war, and that there was yet a remnant of the true believers of the Koran who, in fear and trembling of our powerful display of an armed force, had not deemed it desirable to quit their customary occupation and join their fathers, their brothers, or relatives in yonder plain. We observed two or three drinking dens, bearing French titles, "Hôtel de Ville," "Hôtel de Lesseps"; they were not sufficiently inviting, however, in their exterior to tempt us, so we did not enter them. On walking through a sort of main street lined on either side with rows of dirty-looking shops in which Arab merchants and dusky-coloured craftsmen were exposing their offensive-smelling fish and fly-covered merchandise and wares for sale, we arrived at a sort of square filled with human beings collected from every nation under heaven, and on the further side of which stood quite a handsome-looking edifice, built of quadrangular blocks hewn out of white coral brain-stone (all the buildings and all the walls in this town are composed of this beautiful coralline substance), and which the bystanders asserted to be

OSMAN DIGNA'S TOWN HOUSE.

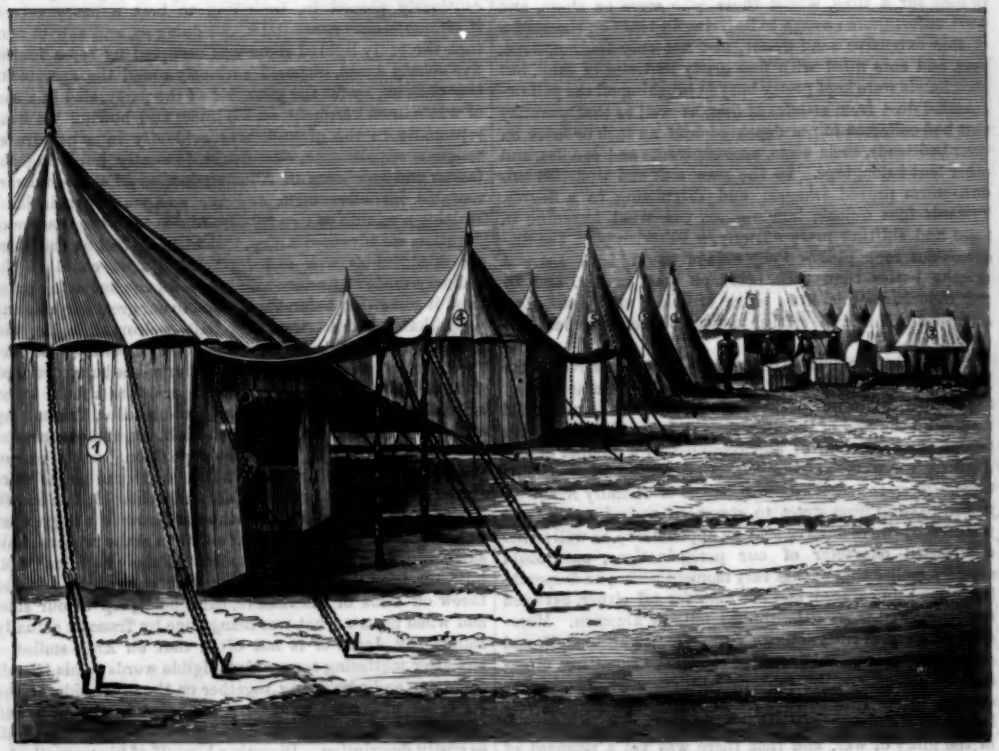
Of course Truscott would sketch the inside, whilst I determined to try my hand at the outside of the mansion—that is to say, if the tenants now in possession of it would grant us permission, and let us enter to do so. So, wending our way through the motley ill-conditioned crowd, we arrived opposite the solidly built double front door, one-half of which happening fortunately to be just open, we cautiously peeped in, intending to beat a hasty retreat if circumstances necessitated our doing so, and saw at once that the badly lighted room was occupied by some four or five elderly Arabs, disposed variously round the apartment. One of them, by far the youngest of the party, clad in a sort of white linen vestment, on his knees and bowing his head repeatedly to the ground, was evidently in a posture of religious supplication,—no doubt fervently imploring the favour and assistance of Allah against us all as the unwarrantable intruders upon and the spoilers of their land. Waiting a minute or two for him to rise from the posture of devotion, we advanced a step, and with one foot on the door-sill salaamed as well and decorously as we could in the ordinary mode of Eastern salutation—of course having practised it somewhat beforehand,—and to our great surprise and unspeakable delight were not only welcomed inside, but offered an inspection of the whole of this dwelling. Beyond the basement hall (the upper and other rooms being cramped and small), there was little to note or write about; so on returning to Osman Digna's reception-chamber, Truscott up with his sketching stool, out with his block, and commenced operations forthwith. I took up a position just in rear of my colleague, with a view to notice what the Arabs were about, and see how they would act under this palpable breach of etiquette on our parts, as well as to throw in a suggestion or give him an artistic hint now and then as the process of his sketching went along. The knight of the pencil had not, however, been long at his work before our religious friend threw off some of his reserve, came boldly up to our side, and when he saw what was being done by Truscott actually smiled—by Jove! it is not often that an Arab smiles,—and after muttering some unintelligible words to his friends squatting and conversing together on the other side of the room, he proceeded to open a cupboard in the wall and withdrew therefrom vestments of the most elaborate as well as costly description. Divesting himself of his toga alba he quickly assumed another of a widely different character both as to colour and textile condition. First of all came a light azure-blue-coloured and flowing satin skirt; and, gathering in its ample folds, he next encircled his slight waist with a cream-coloured girdle of twisted silk; then over his sloping shoulders, carelessly, still very artistically, was thrown a bright-golden-coloured ribbed silk shawl from which hung fringe of the same quality at least six inches deep. After this appeared on his head a huge turban of rich yellow and maroon silk, and then, with a glance in a small hand-mirror which he held and a twist or two of his jet black moustache, he finished his get-up, evidently much to his own as well as to his companions' satisfaction. Truscott stopped work to look in astonishment at this modern example of an Arabian Nights transformation, whilst I was equally lost in amazement at the wonderful change that had come over the religious devotee since the first moments of our self-forced introduction.

Subsequently it transpired we had (quite by accident) hit upon the day of the sheikh's "at home," as several elderly white-headed old patriarchs called upon him during the afternoon of our visit, giving him most deferential bows on entry, and receiving from him in turn that *bonhomie* courtesy which alone is the outcome of position, patronage, and power. A question now naturally arose betwixt us,

"WHO IS HE,

as a respected tenant in this Osman Digna's house?" "Is he a brother, is he a cousin, or in what relationship, if any, does he stand to that Mahdi's lieutenant, who has so long and so pluckily defied the British arms and power?" How we longed to know how and by what means the present holder had been permitted to remain in occupation of this domicile! But any further surmises on our part were suddenly cut short by the introduction of coffee, which, in small chased silver cups, was handed round by an attendant to all present. On the same being presented to me I incautiously proceeded to tip the Nubian slavey, and received a well-merited rebuke from mine host for my thoughtlessness and want of manners on this occasion. With some degree of diffidence I brought the tiny metallic receptacle to my parched lips. I was very thirsty at the time, and swallowed an ounce or two of the strongest infusion of Mocha I ever tasted in my life; and although the dictates of conventionalism amongst the Arabs forbid a guest to reject proffers of edibles or drinkables not actually forbidden by their religious tenets, I think I must have refused a second edition of the coffee—"thick stuff" Truscott called it—if brought round again, and was very glad to find there was no repetition of the courtesy. I was wearing at the time a brown leather cross-belt, to which was attached a cartouch-box for carrying a small surgical case in. To-day within it there happened to be a consignment of cigars. A thought struck me. I'll offer my guest one of them. So, bringing the box round from my back, I was in the act of undoing it for the purpose of extracting a veritable "Henry Clay," when I saw a look of consternation on the face of my host and his other native guests. I grasped the situation in a moment. They thought I carried firearms, and was going to use the same against them. It took but a moment to undeceive them, for in a second or two afterwards a cigar was out from where a cartridge was expected to issue, and presented with due formality to His Excellency, while I explained to him at the same time that I was not a fighting man. My business out in the Soudan, and amongst his people, partook more of a pacific than a fighting character, and my desire was for peace rather than war. I assured him I had never lifted hand or weapon against him or his people, and, more than that, I trusted I never should. This explanation gave him confidence, and the fear formerly depicted on the countenance of my host was speedily changed to a look of astonishment, whilst a considerable amount of amusement was created amongst the guests present by the *dénouement* to which my cigar-case had so unexpectedly given rise to. He gracefully declined my offer, saying he never smoked; but from that moment I was always a welcome guest at the house. I should scarcely deem the above incident worth recording were it not for

H REDOUBT AND BASE HOSPITAL.



1. Dr. Trotter's tent. 2. Hospital stores tent. 3. Operating tent. 4. Medical officers' tent. 5, 5, 5. Tents of orderlies and attendants.

WHAT CAME OF IT AFTERWARDS.

Two or three days elapsed before I again paid the town a visit; when I did so I called in to see my sheikh friend, and was welcomed more cordially than before. Presently an elderly Arab entered and commenced a very animated conversation with mine host. I listened—who will blame me for doing so?—and through possessing a slight knowledge of Persian and Arabic, gained during my studies in the Hindustani language, and from carefully watching the manual demonstrations by the informant, putting this fragment and that fragment of conversation together, I was enabled to gather

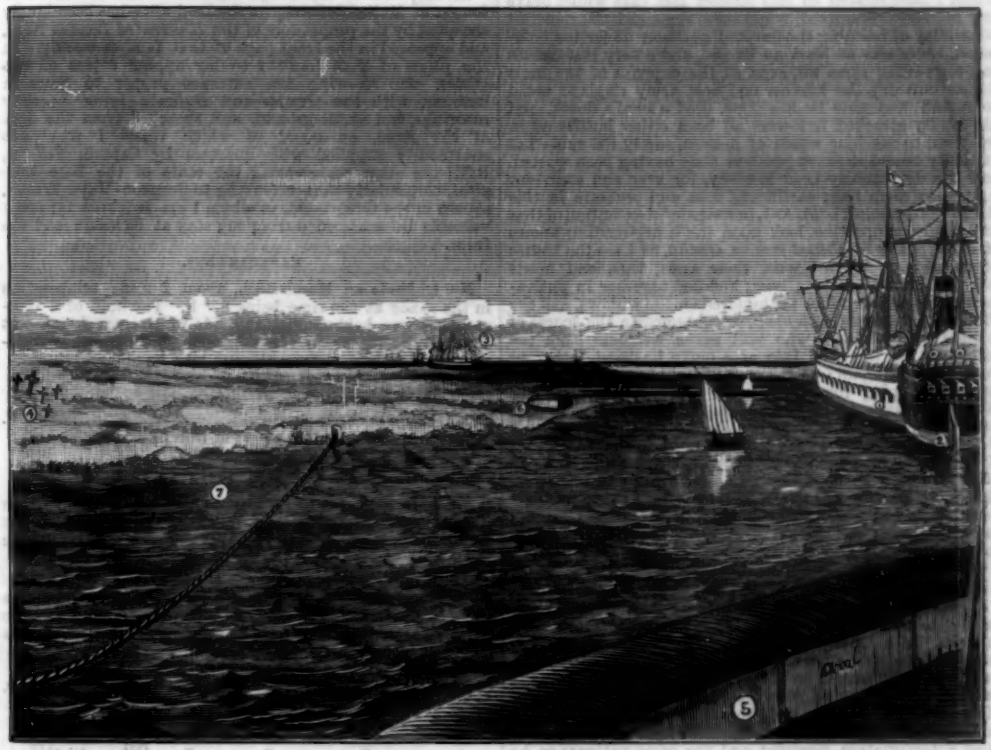
that not only had something unusual happened amongst their Arab forces, but, if I mistook not his meaning, a sad fatality had overtaken the Amara and Samara tribes by some fatal blunder—i.e., they had been mistaken, it appeared, in the smoke for English soldiers, and by getting between the fire of our troops and the riflemen on Osman Digna's side had lost nearly a thousand of their number by their stupidity and blundering. This was indeed a most welcome "find" for me. A thought at once struck me: "That old fellow knows more than he has told; I'll try to get hold of him for further information." With this idea in view I set to work, and within a few hours he was attendant on me in one of Messrs. Lucas and Aird's tents, and a willing agent in my service into the bargain. I proceed to give the dialogue *verbatim* as it occurred between us in the presence of one of the ablest interpreters attached to the British camp.

Q. What is your name? *A.* Al-Abed.—*Q.* What country-man are you? *A.* Arab by birth.—*Q.* Where do you live? *A.* Principally at Jeddah.—*Q.* How is it that you are here in Sawakin? *A.* I am a travelling merchant sheikh, and have been so for a number of years.—*Q.* Do you know Osman Digna? *A.* I do, very well indeed.—*Q.* Now, are you friendly with the English? *A.* Yes, quite so; I do not think the English will do me any harm.—*Q.* How is it that Osman Digna and your brethren in arms do not think so too, and come in and be making money by working on the rail as the friendly disposed are doing? *A.* Because they are silly men, and do not know better.—*Q.* Now tell me, have you heard that any of Osman Digna's troops have been killed through an accident? *A.* I do know it to be perfectly true that several hundred men of the Amara and Samara tribes were shot by getting in between the fire of the English and our men.—*Q.* Is there any dissatisfaction amongst Osman Digna's party? *A.* Yes, there is considerable disapproval amongst them at being forced to fight outside when many of their friends are staying inside the town not fighting, and earning plenty of rupees by so doing.—*Q.* What is your opinion about Osman Digna's surrendering himself to the British, and upon what terms? *A.* On account of the many people leaving him, I think it highly probable Osman Digna would surrender himself on certain terms being granted him.—*Q.* Give me your ideas of his terms, and I will see what can be done for you. *A.* First, the lives of himself and all followers must be spared; secondly, that he on surrender be treated as a patriot, not as a rebel, and *with no less consideration than Arabi was;* thirdly, that work be found on the railway for the people when they do come in and lay down their arms.—*Q.* Could you carry to, and bring back a letter from, Osman Digna? *A.* No, not myself, I am too old for the journey; but I can get a man to do it, if the General will grant a pass through the British lines, and the messenger is paid for going. — *Q.* Where is Osman? *A.* I cannot tell you. It would cost me my life.

And with this our interview terminated. Then getting the principal items of our conversation jotted down and signed by the interpreter present as a witness to its veracity, I posted off with it to the tent of General Ewart at the base, who took such a well-disposed interest in the matter that he at once despatched me in company with his aide-de-camp to head-quarters, so that the officer in charge of the Intelligence Department should be made aware of the facts without a moment's delay. What transpired between myself and Major Grover for the purposes of this paper need not be known; but the public may rest assured that no stone has yet been, nor ever will be, left unturned to bring about a

ENTRANCE OF SAWAKIN HARBOUR.

(Sketched from the deck of the steam transport ship "Arab.")



1. *Ganges* hospital ship.
2. B.I. steam transport ship *Bulimba*, Captain Clark, R.N.R.
3. H.M. gunboat lying at entrance of harbour.
4. Old burial-ground, where the late Lt. Dalliston, of the Guards, lies.
5. Rail and bulwarks of *Arab*.
6. Henhouse of *Ganges*.
7. Showing shallowness of water over coral formation.

pacific as well as an honourable termination of this most calamitous campaign. This happened on Saturday, March 21st. Sunday followed with all its train of distressing and disastrous events. Who knows by the sparing of our troops from that Sunday's march out what might by God's mercy have been brought about? I never saw my sheikh friend again; so turning my thoughts from our friendly Arabs (for there are many such) and casting my eyes plainward, what a ghastly sickening spectacle of war lies there! Upwards of twenty heaps, each one containing about a hundred carcases of human beings just ready for burial or cremation, as the urgency of the circumstances may demand. On beholding such an unnatural exhibition, what is the exclamation that escapes the lips of every officer and every man you meet with out there?—Horrible! And is it not also asked everywhere you go—

FOR WHAT PURPOSE IS ALL THIS EXPENDITURE OF HUMAN LIFE?

Ah! we may well ask ourselves that question. All to whom I have spoken on this subject feel that whilst brave and heroic Gordon lived, while there remained the remotest possibility of rescuing the devoted garrison under his command, there was at least an excuse, and a very just excuse too, for saving them all, even at the expense of the most daring chivalry the bravest and best army England could command; but now he has gone, died a hero's death, and his fondly attached followers all been either butchered or scattered to the four winds of heaven, surely the cause has virtually ceased to exist, precious time having been wasted, and the opportunity been lost—ay, for ever and ever—for doing any more than sacrificing men and treasure in this sickly sun-scorched land. As I, in the painful execution of that duty imposed upon me, look upon the heart-rending scenes of carnage and bloodshed strewn around, as I see the bodies of those poor fellows, with their arms, legs, and heads pointing in all directions, lying huddled together in putrescent heaps, as I think of the hundreds made widows, and the thousands rendered fatherless, or contemplate the scores of friends and relatives who will never welcome back the return, or see the kind face of a brave husband, father, or loving friend again; as I see the seething and devouring flames wrapping round, one after another, the poor, yet after all perhaps the happiest of happy homes, of these poor barbarians, and as I view the smoke of that desolation circling and curling upward to the sky,—I can but think that if there be a God in heaven he will surely bring some to book who have been foremost in fomenting and urging on this most unholy of wars. I turn from this spectacle homeward, and arriving once more at the Base Hospital, my attention is called by the surgeon in charge to a very interesting case, indeed, it being that of

A POOR ARAB LAD SHOT THROUGH BOTH THIGHS.

On my entry into the hospital tent he was observed lying on his left side, and certainly appeared not more than thirteen, or at most fourteen, years of age. He is recognised as one of the brave leaders who made a most plucky and determined attack on our lines, for, with nothing but a banner in hand, he rushed on our ranks, utterly regardless of life or the consequences, until he was brought to earth, being shot through both legs by one of our marksmen. With the same determination, however, and the same patience as he exhibited during the fight, in the presence of his captors he bore his pain and sufferings now, and they must have been excruciating at times. Although the bullet had penetrated and passed through the fleshy part at the juncture of the middle and upper thirds of both limbs, I never even heard him moan; not a cry, not a groan, ever escaped his parched and swollen lips, and there was little to tell, beyond the visible application of a quantity of antiseptic dressing wrapped round the limbs, that he had ever been wounded at all. Poor fellow, he lay so quiet—never moving, save to brush away occasionally some irritating fly that had settled on his fever-heated brow; but never would he let it be known that he felt pain, or that he suffered any inconvenience whatever from the active and plucky show he had made in yonder fight. Now and then he would try to, and did, remove the dressings and bandages from his extremities, and it kept the nursing staff pretty busy preventing him from oftener repeating the offence.

I think in my last letter I spoke of the ship *Ganges* being suitably painted white; why I did so is because most of the transports are painted of a slate-grey colour, for what purpose I am at a loss to conjecture, when, for all purposes of health or mitigating the effects of heat, these vessels might as well have been clothed in a darker colour. From experiments made by myself and others, most carefully conducted by a naval officer some time ago in Bombay dockyard, it appears that a very great mistake is made in coating ships of a hue anything approaching an ash-grey tint.

I append the results of these experiments to prove the accuracy of my statements, with the view that some interest may be awakened in those who are responsible for the transport arrangements, and have the interest as well as the health of our soldiers and sailors at heart.

My experiences in the Soudan are now drawing to a close, as having been offered by the Principal Medical Officer at the base, and accepted, a charge, in conjunction with another medical officer, of some sick and wounded bound to Suez, I proceed on board the *Deccan* to take up my duties before night has finally closed in.

Already one of my rough sketches—that of the battle fought at McNeill's Zereba on the 22nd ult.—has been kindly accepted by the proprietors of the *Illustrated London News*, and appeared in the front page of that famous weekly. In the pages of THE LANCET to-day appear copies of two others, one showing the entrance proper to Sawakin harbour, with the *Ganges* and *Bulimba* lying at their moorings, and burial-ground, and sketched from the deck of the *Arab*, on board of which vessel I was most courteously supplied with quarters by Captain Fellows, R.N.; the other representing the tents of the Base Hospital, particularly that belonging to Surgeon-Major Trotter, shown in the foreground, to whom I am indebted for much valuable information during my stay at Sawakin and the front.

EXPERIMENTS.

No. 1. Made on March 18th, about 2 P.M.; temperature in the shade at the time being 85° F. The bulb of a thermometer was held against the side of the naval transport Union Co.'s ship *Arab;* the thermometer during the experiment being screened from the sun by a handkerchief.

Result.

Temp. of air in shade	85° F.
" " against black part of iron hull	113°
" " against a portion painted white ...	104°
" " against a portion painted lead-colour	112°

No. 2. In a wooden box, painted black, a thermometer was introduced, and also into another painted white (both left standing for one hour in the sun). The result was as follows:

1. Black ... ... 117° F. | 2. White ... ... 102° F.

No. 3. Six thermometers I hung up in the sun, having two parts of new bunting of different colours wrapped round the bulbs and lower ends of each thermometer (also exposed to the sun for one hour).

Result.

Temp. of the air in shade	91° F.
" 1st thermom. cov. with 2 parts of white ...	106°
" " " " yellow ...	109½°
" " " " red ...	110°
" " " " blue ...	114°
" " " " light-blue	115°
" " " " black ...	117°

This experiment shows the advantage of light-coloured clothing and awnings in the tropics. Having no lead-coloured bunting, I was unable to test results with this.

No. 4. Procured ten tin biscuit-boxes, and painted them variously as under. Into each one was introduced a thermometer, which was simply left standing up in the boxes on the side opposite that exposed to the sun. Time, 3 P.M. Temperature of external air in the shade, 88° F.

1. White	100° F.	6. French-grey...	106½° F.
2. Yellow	103½°	7. Lead-colour ...	109°
3. Red	104°	8. Dark-green ...	110½°
4. Stone-colour ...	102½°	9. Light-green ...	109°
5. Blue	106°	10. Black	114°

N.B. These tin biscuit-boxes were closed, and left standing in the sun for about two hours.

No. 5. Three square tin biscuit-boxes were next painted and whitewashed variously, to test the relative merits of same.

Results.

A*a*.	Painted white, and exposed to the full rays of the sun	100° F.
	Painted French-grey, and exposed to the full rays of the sun	111°
	Painted dark-grey, and exposed to the full rays of the sun	112°
A.	Painted with one coating of grey over white	108°
	Painted with two coatings of grey over white	116°
	Painted white, and exposed to the sun ...	100°
	Whitewashed	98½°
B.	Biscuit-box, painted French-grey	111°
	Over this paint one coating of whitewash applied	102°
	With two coatings of whitewash	96°
C.	Biscuit-box, painted lead-colour	112°
	Over this paint one coating of whitewash applied	103°
	With two coatings of whitewash	97°

The results of these experiments go far to prove the vast superiority of white to *grey* as regards coolness for coating anything that is subject to exposure to the sun in the tropics, and would also lead to the inference that white, if allowed to become dirty or grey-like, would thereby be rendered much less cool than it originally was when in a cleanly condition. Moreover, the results of experiments carefully and patiently made by Staff Commander Pounds, R.N., of Malta Dockyard, go very far to corroborate in every respect those of my own.

Erratum.—In our correspondent's letter published last week, an important typographical error escaped correction. Each of the officers' hospital tents is there stated to have contained "eighty" beds. The number should, of course, have been eight.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Poplar.—In the last monthly report issued as to the Board of Works for the Poplar District, reference is made to the visit of Dr. de Chaumont, on behalf of the Local Government Board, in connexion with precautions which may be necessary as to cholera. From what is said, it would appear that the central authority are advising all port and riparian authorities to be provided beforehand with means for isolating cases of that disease; and that it has been laid down as desirable that cholera cases should not be subjected to a journey of more than a mile when isolation is intended. For the metropolis this would mean the establishment of a large number of hospitals; but, having regard to the symptoms of cholera and their rapid progress, we believe the limit of one mile to be a wise one; and should the disease appear in our midst we hope the requisite number of temporary hospitals will be forthcoming.

Huddersfield (*Urban*).—A report issued by Dr. Cameron shows that the death-rate in Huddersfield during the thirteen weeks ending April 4th was equal to 22·4 per 1000, of which 2·0 was due to the principal zymotic diseases. Both those rates were slightly below the mean rates during the same period in the twenty-eight English towns, although they somewhat exceeded the low rates that prevailed in Huddersfield in the first quarter of 1884. The deaths last quarter included 36 from measles; and Dr. Cameron points out that little can be done to check the spread of this disease until it is added to the list of diseases to be notified to the sanitary authority. It is pointed out, moreover, that 4 deaths were referred to typhoid fever, and that 19 "supposed" cases of this disease were notified during the quarter, suggesting the probability of another outbreak of this disease next autumn unless preventive measures are vigorously enforced. Infant mortality in Huddersfield last quarter exceeded the average rate in the twenty-eight towns, owing in great measure to the epidemic prevalence of measles.

Stretford (*Urban*).—The report upon the sanitary condition of this suburban district of Manchester during 1884 states that the birth-rate and death-rate were equal to 27·5 and 17·3 per 1000 respectively. The estimate of population upon which these rates are calculated is, however, omitted, which materially detracts from the value of the rates. The population of this district increased from 11,945 in 1871 to 19,018 in 1881, and Mr. Pettinger appears to have estimated the population in 1884 at 20,000. This is considerably below what the estimate would be if based upon the rate of increase between 1871 and 1881. The death-rate given (17·3) exceeds that recorded in recent years, and no account appears to be taken of the deaths of residents recorded in public institutions situated outside the district. With regard to child mortality, we are told that the deaths included 139 children under five years, "showing a death-rate of 6·95 children under five years of age." It may be presumed that this means that the deaths under five years were equal to 6·95 per 1000 of the population at all ages. Such a rate is utterly valueless as a test of child mortality, which can only be measured by the proportion of deaths of children to the number of children living at the same ages. We are not told that the deaths of infants under one year were equal to 144 per 1000 of the children born, which is a trustworthy test, and shows for such a district as Stretford a remarkably high rate of infant mortality. The zymotic death-rate is given as 1·9 per 1000, and was mainly due to 9 deaths from scarlet fever and 24 from diarrhœa. Bearing in mind the suburban character of the population, and its large quota of domestic servants, the sanitary condition of the district, in spite of a comparatively low death-rate, cannot be considered satisfactory.

New Windsor (*Urban*).—Dr. Casey is able to report very favourably of the health of this municipal borough during 1884, the death-rate having been but 13·3 per 1000, which is satisfactorily low, even after due allowance for the abnormal character of the population, including as it does a large proportion of soldiers. The population of the borough is estimated (evidently on the basis of the rate of increase between 1871 and 1881) at 12,441. The birth-rate was not more than 26·8, influenced, as was the death-rate, by the number of soldiers and of domestic servants in the population. The deaths, including those in the union workhouse, and excluding those of non-residents in the Royal Infirmary, were fewer than in any recent year, and were 74 below the number that would have occurred had the rate in the borough been equal to the mean rate in the whole of England and Wales. Two exceedingly favourable features in this report are: (1) the low rate of infant mortality, which was only 72 per 1000, and less than half the general rate; and (2) the low zymotic death-rate, which did not exceed 0·88 per 1000. The statistical part of the report, especially that which gives the rate of mortality during the past five years at each of four groups of ages, is highly commendable, and corroborates the satisfactory evidence of the low death-rate at all ages. Two unfavourable features in the report should, however, be noted. It is stated that no means exist in the borough for the isolation of cases of infectious disease, which, in view of the four cases of small-pox that occurred last year, cannot be considered satisfactory. It appears, moreover, that the town, especially in the older parts, abounds with "dangerously polluted wells." The favourable mortality statistics of last year should not depreciate the value of the warning implied by Dr. Casey in pointing out these defects in the sanitary condition of the Royal borough.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5792 births and 3601 deaths were registered during the week ending the 2nd inst. The annual death-rate in these towns, which in the preceding two weeks had been 23·2 and 23·4 per 1000, declined last week to 21·1. During the first four weeks of the current quarter the death-rate in these towns averaged 23·2 per 1000, against 23·9 in the corresponding periods of the nine years 1876-84. The lowest rates in these towns last week were 15·1 in Hull, 15·1 in Derby, 15·2 in Bolton, and 15·9 in Brighton. In the other towns the rates ranged upwards to 30·1 in Blackburn, 30·6 in Manchester, 32·7 in Preston, and 34·4 in Newcastle-upon-Tyne. The deaths referred to the principal zymotic diseases in the twenty-eight towns,

which had steadily increased in the preceding nine weeks from 377 to 529, declined last week to 449; of these, 176 resulted from measles, 127 from whooping-cough, 36 from small-pox, 33 from scarlet fever, 30 from diarrhœa, 20 from diphtheria, and 22 from "fever," principally enteric. The lowest death-rates last week from these diseases were recorded in Brighton and Derby, and the highest in Sunderland, Cardiff, and Newcastle-upon-Tyne. Measles caused the highest proportional fatality in Sunderland, Liverpool, Manchester, and Cardiff; whooping-cough in Blackburn, Cardiff, and Preston; scarlet fever in Preston, Newcastle-upon-Tyne, and Sunderland; and "fever" in Norwich and Leicester. Of the 25 deaths from diphtheria in the twenty-eight towns 15 occurred in London, 3 in Bristol, 2 in Portsmouth, and 2 in Liverpool. Small-pox caused 66 deaths in London and its outer ring of suburban districts, 2 in Manchester, 1 in Liverpool, and 1 in Halifax. The number of small-pox patients in the metropolitan asylums hospitals, which had been 1062 and 1034 at the end of the preceding two weeks, rose to 1282 on Saturday last; the admissions, which in the previous two weeks had been 307 and 246, rose to 354 last week, and exceeded the number in any week since June last. The Highgate Small-pox Hospital contained 87 patients on Saturday last, 20 cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had declined in the preceding three weeks from 512 to 381, further fell last week to 337, and were 59 below the corrected weekly average. The causes of 91, or 2·5 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Plymouth, Nottingham, and in three smaller towns. The largest proportions of uncertified deaths were recorded in Hull, Halifax, Salford, and Oldham.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which in the preceding four weeks had declined from 25·0 to 22·7 per 1000, further fell to 22·4 in the week ending the 2nd inst., but exceeded by 1·2 per 1000 the mean rate during the same period in the twenty-eight English towns. The rates in the Scotch towns last week ranged from 11·4 in Leith and 15·2 in Aberdeen, to 27·5 in Glasgow and 30·8 in Paisley. The 546 deaths in the eight towns included 27 which resulted from whooping-cough, 14 from measles, 9 from diarrhœa, 7 from scarlet fever, 4 from "fever" (typhus, enteric, or simple), 3 from diphtheria, and not one from small-pox; in all, 64 deaths were referred to these principal zymotic diseases, against 76 and 81 in the preceding two weeks. These 64 deaths were equal to an annual rate of 2·6 per 1000, which corresponded with the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 17, 23, and 30 in the preceding three weeks, declined last week to 27, and included 15 in Glasgow, 3 in Edinburgh, 3 in Paisley, and 3 in Perth. The 14 deaths referred to measles showed a further decline from recent weekly numbers, and were all recorded in Glasgow. The fatal cases of scarlet fever, which had been 7 and 4 in the previous two weeks, rose again to 7 last week; 3 occurred in Edinburgh, 2 in Glasgow, and 2 in Paisley. The 4 deaths from "fever" were fewer than those recorded in any recent week, and included 2 in Edinburgh. Of the 3 fatal cases of diphtheria 2 were returned in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 131 and 118 in the previous two weeks, were 124 last week, and exceeded by 8 the number returned in the corresponding week of last year. The causes of 78, or more than 14 per cent., of the deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had risen in the preceding three weeks from 32·2 to 34·0 per 1000, declined to 33·5 in the week ending the 2nd inst. During the first four weeks of the current quarter the death-rate in the city averaged 33·4 per 1000, the rate during the same period not exceeding 21·9 in London and 18·8 in Edinburgh. The 227 deaths in Dublin last week were within 3 of the number in the preceding week, and included 40 which resulted from the principal zymotic diseases, against 29 and 28 in the previous two weeks; 17 were referred to measles, 9 to "fever" (typhus, enteric, or simple), 5 to scarlet fever, 5 to diarrhœa, 4 to whooping-cough, and not one either to small-pox or diphtheria. These 40 deaths were equal to an annual rate of 5·9 per 1000, the rate from the same diseases not exceeding 2·9 in London and 1·7 in Edinburgh. The deaths referred to measles, which had been 15 in each of the preceding two weeks, rose to 17 last week. The fatal cases of "fever" showed an increase of 5 upon the number in the previous week, and exceeded those recorded in any week since the end of January last. The deaths from scarlet fever, whooping-cough, and diarrhœa also exceeded those returned in recent weeks. Five inquest cases and 5 deaths from violence were registered, and 64 deaths occurred in public institutions. The deaths of infants showed a further increase, while those of elderly persons showed a slight further decline from those returned in recent weeks. The causes of 35, or more than 15 per cent., of the deaths registered during the week were not certified.

Correspondence.

"Audi alteram partem."

THE CUSTODY OF LUNATICS.

To the Editor of THE LANCET.

SIR,—In your annotation last week on this subject your advice to the medical officers of workhouses is "Let the authorities get out of the difficulty as best they may." Does this advice imply that the medical officers are not to deal with the lunatics placed under their charge? If so, such advice is impossible to be followed, as the medical officer seems to me to be obliged to give a certificate on the request of the master or relieving officer as to the state of a patient's mind and the advisability of letting a supposed lunatic go free. Should any damages be assessed to the medical officer from illegal detention on such a certificate, the parish will have to pay such damages, and such a custom has been followed in all the cases that have come to my knowledge. There is no reason, therefore, at present why workhouse medical officers should depart from their usual routine. I cannot admit the truth of the next sentence, where it stamps as a mischievous practice the sending of suspected lunatics to workhouses, or "that a workhouse is not the place for such cases," or "that a prison is better." Your solution "of the difficulty is to provide reception and probation wards in connexion with the public asylums for lunatics."

Now, as regards our large urban workhouses, most of which possess a staff of trained nurses, responsible male officers, resident medical officers, and suitable wards, why cannot wandering lunatics be attended there temporarily just as well as in asylums? They cannot be attended there permanently so well as at asylums, only because workhouses are in the crowded towns, and it is necessary for the welfare of the insane that they should live in the country. How the bridewells can be better than the workhouses I would like to know. In the bridewells there are neither nurses nor resident medical officers, nor suitable wards. The "prisons" have hospitals, but patients cannot be sent to prisons at midnight. If you provide suitable wards at all the bridewells, with resident medical officers and nurses, then the patients may be treated as well as in the lunatic wards of a workhouse; but I fail to see how they can be treated better. But this would be an unnecessary innovation, and, consequently, an unnecessary expense. It must be remembered that most of these suspected lunatics have to be dealt with in the night-time, and in the majority action must be taken at once—i.e., the patient must be taken into custody at once. You say these should be sent to probation wards in connexion with the large asylums. We will see how this would work in the parish of Liverpool. During last year 355 suspected lunatics were admitted into the lunatic wards of the Liverpool Workhouse. That is, according to your plan, that every twenty-four hours a magistrate would have to be looked for, and a journey of from ten to sixty miles or more made to Rainhill, Whittingham, Lancaster, or Prestwich Asylum, according as each place could or could not afford accommodation at the time. Under the present system, however, 152 only required to be removed to asylums, 203 recovering in a few days, and discharged to town, or taken charge of by friends, or sent into the work-

house as destitute. Many of these 203 went back to their work without any "insane" stigma upon them. They were looked upon as being "off it" for the time, through drink, grief, anxiety, or any of the other causes of temporary insanity that are rife in a large city. There is no stigma amongst the poor so hard to shake off as having once been in an asylum. No one will employ quondam lunatics; but if they have only been in the workhouse hospital a few days no such stigma attaches to them. It is true, that the workhouse stigma may be altogether eliminated by having a special hospital for such cases, but that would only be a change of name. Nor would it be necessary, as the great majority of these cases are destitute, and belong to the class cared for by guardians. The 152 are now pauper lunatics, 79 of the others were discharged to the workhouse. Some of the remaining 124 had friends who when communicated with by the parish authorities came forward and took charge of them, defraying expenses; but the majority of these, had they continued insane, would have become chargeable to the parish. Why, therefore, should another authority be constituted to deal with cases that from the nature of things will have eventually to be handed over to the present authority to support and look after?

It is only amongst those temporarily or permanently destitute that any trouble will arise. The better classes can procure assistance at any hour of the day or night to prevent their insane relatives from injuring themselves or others pending the preparation of the necessary forms and the arrival of a convenient time for allowing their removal to an asylum. But the poor cannot do this, and their insane relatives must be taken off their hands promptly. By the method practised in Liverpool this has been done for years, with the greatest possible advantage to all concerned. I sincerely trust the Local Government Board will legalise beyond all doubt such a system as has been used with us, as it will prove the most workable and most beneficent to the poor creatures concerned of any that has yet been proposed. It will provide for such cases when found half naked and dangerous in the streets, the bridewells, or in the homes of the poor. To take away this provision because relieving officers have in isolated instances removed respectable and harmless lunatics from comfortable homes is unnecessary, and very like yielding to panic on the part of the authorities. Any argument derived from some workhouses not having sufficient proper accommodation or attendance woule be met by insisting on suitable accommodation and attendance being provided in such places.

I am, Sir, yours truly,

WM. ALEXANDER, F.R.C.S.,
Visiting Surgeon, Liverpool Workhouse Hospital.

Liverpool, May 4th, 1885.

*** We do not suggest that medical officers should do less than their duty. All we desire to urge is that they should not do more. By all means sign certificates, but leave to the authorities the discovery of a way out of the difficulty which the absurd arrangements at present in force have created.—ED. L.

METROPOLITAN ASYLUMS BOARD.

To the Editor of THE LANCET.

SIR,—On Jan. 12th last I paid an independent and totally unexpected visit to the Darenth Small-pox Camps, and the general result of my inspection appeared in your journal on the 17th of that month. That the scale of diet, clothing, &c., was not illiberal was perhaps all too plain; indeed, the condition of the unfortunate inmates of that convalescent hospital was nearer akin to that of luxury than the opposite. The revelations now taking place with regard to the Homerton hospitals are still more striking, and prove, with the evidence of my own visit to that at Darenth, the absolute necessity of the speedy appointment of a thoroughly competent inspector or superintendent-general of all the institutions under the management of the Asylums Board. I therefore offer no apology for inviting the aid of your powerful pen in urging such a measure. At present each medical superintendent appears entirely free, and at liberty to tax the public purse to any extent his professional whims and fancies may suggest. What appears to me to be required is a firm and capable head, with full powers, but acting in concert with, and to some extent in subordination to, the responsible and able medical advisers of the Local Government Board, to organise a more or less uniform system with regard to the food, clothing, hospital comforts, and necessaries, and all the other details of the Asylums' *régime*. The idea, in all its fulness, will, I am sure, be at once clear and commendable to you, and therefore its further development appears to me quite unnecessary.

I am, Sir, yours truly,

JOHN INCE, M.D.,
H. M.'s Indian Medical Service (retired list).

Farningham, May 5th, 1885.

THE LATE DR. TIBBITS OF BRADFORD.

To the Editor of THE LANCET.

SIR,—Will you kindly allow me, through your columns, to appeal for help for the widow and nine children of the late Dr. Tibbits, physician to the Bradford Infirmary.

A rapidly fatal attack of pneumonia put an end to his valuable life on April 14th, before he had had any opportunity to lay by money for his very large family of young children. All the property, inclusive of books and furniture, which he left behind, when realised and invested safely at 3½ per cent., is calculated not to produce more than £20 per year. His friends and medical brethren are raising a fund for the maintenance of his widow and children. If my letter should meet the eye of any of his old college friends who were contemporaries of his at University College, I think they may be induced to lend a helping hand. The case is truly necessitous and deserving. For ten years he laboured and maintained his large family without private income of any moment beyond that which he derived from physician's practice. The little capital he possessed on first starting consulting practice was trenched upon year by year to maintain his family, and just as this little store was approaching exhaustion, and just as success in practice was beginning to come, his life was suddenly brought to its close. Any contributions will be thankfully received by me or by Mr. Wm. Mavor, the Secretary to the Bradford Infirmary.

I am, Sir, yours very truly,

J. APPLEYARD, F.R.C.S. & M.B. Lond.

1, Clifton Villas, Manningham, Bradford, Yorks, April 29th, 1885.

ROYAL COLLEGE OF PHYSICIANS.

To the Editor of THE LANCET.

SIR,—The number of Fellows elected last Thursday, though twenty for the double year, does not reach your proposed annual average of fourteen or fifteen; and as the selection for the last three or four years has been exclusively from Members within the decade 1870-80, at least thirty-seven out of thirty-eight being within this date, might not the complement be justly made up from senior Members, who otherwise will seem to be permanently excluded?

I am, Sir, yours truly,

A MEMBER (BY EXAM.) OF LONG-STANDING.

May 4th, 1885.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

NORTHERN COUNTIES HOSPITAL FOR DISEASES OF THE CHEST.

THROUGH the resignation of Dr. John C. Murray a vacancy occurs in the honorary medical staff of this young but useful institution. The committee have made canvassing a disqualification, and I think the rule will have a good tendency, and might be well copied in like cases by some of our older medical institutions. Dr. John C. Murray is one of the founders of our Chest Hospital here, and has done good work in connexion with it. He is, I understand, about to release himself from the toils of town practice, and is removing to the south of Scotland. Dr. Murray a few years ago published a very successful work on the Use and Abuse of Tobacco.

THE MORTUARY QUESTION AT DURHAM.

Dr. Barron, at a late meeting of the Durham Sanitary Authority, in his farewell report as medical officer of health for the city, pointed out the urgent need which existed for

a public mortuary being added to the sanitary conveniences of the city. A correspondent in the *Durham Chronicle* also refers to this want, which was painfully apparent in a case occurring a few days ago, and which became the subject of a coroner's inquiry, a remark from that official tending in the same direction. It appears that lately an old man who arrived from Newcastle by a day train was suddenly seized with an attack of illness which unfortunately proved fatal. It seems that the body remained in the ticket office for nearly three hours, and was exposed to the gaze of all passing in and out of the room during the time. No blame is cast on the railway officials by the writer; the painful occurrence was solely caused by the want of a public mortuary. The matter is to be brought before the committee of the Sanitary Authority with a view to its arrangement; but this is just one of those matters which are apt to be dropped under various excuses, unless prominently kept before the authority.

EPIDEMIC OF MEASLES AT JARROW.

A very serious and extensive outbreak of measles is reported at Jarrow, causing considerable mortality; indeed, there seems to be a wave of this disease passing slowly over our northern towns. At Jarrow, the Town Council, at a meeting presided over by the Mayor, decided to close at once all the week-day and Sunday schools in the borough.

CARLISLE MICROSCOPICAL SOCIETY.

At the meeting of the above Society an able and exhaustive paper on "Micro-organisms" was read by Dr. Lediard of Carlisle. An animated discussion followed the paper, and the lecturer received a cordial vote of thanks from a large meeting.

MUNIFICENT BEQUESTS TO THE TYNESIDE CHARITIES.

The late Mr. Frederick Glenton, many years a merchant in Newcastle, left a considerable amount of money to be distributed in charity, the chief scope of his charitable bequests being in the direction of institutions that had mainly for their object the befriending of children. The following local medical charities may be mentioned as having been benefited, among others, by cheques from the surviving executor, Mr. Wm. Nesham of this city—viz., Hospital for Sick Children, £500; Eye Infirmary, £500; Deaf and Dumb Institution, £400; Lying-in Hospital, £100.

The information which I gave you in a former letter respecting the regulations of the University of Durham appeared previously in one of our local and usually well-informed papers.

Newcastle-on-Tyne, May 4th.

EDINBURGH.

(*From our own Correspondent.*)

OPENING OF THE SUMMER SESSION.

THE summer session in the University and Schools of Medicine commenced on Monday, May 4th. Notwithstanding the awkward arrrangement by which lecturers were obliged to commence their teaching on a day when many students are almost necessarily absent—an arrangement for which the University authorities are responsible,—the classes are reported as more than usually crowded. In the Extra-Academical School are several new courses of lectures, amongst which there are a short series of lectures on "Mental Disease," by Dr. J. Batty Tuke; and a class of Operative Surgery, under the direction of Mr. C. W. Cathcart; whilst within the University, in addition to the ordinary work of the session, a series of special courses is announced in the Faculty of Arts, conducted by the assistants to the professors in the various subjects.

PROFESSOR RUTHERFORD AND THE ANTI-VIVISECTIONISTS.

For some years the anti-vivisectionists have made great capital by depicting the Edinburgh Professor of the Institutes of Medicine in most sanguineous hues as the repulsive figure-head of a craft which is searching for the pole of some Tartarean sphere of scientific fallacy. His laboratory has been publicly likened to a slaughterhouse, and himself—even more explicitly than by mere inference—to the presiding genius of such a place. From time to time in past years the Professor has repelled these attacks—at times, in fact, in such strong terms as to increase the thrill of horror by which the adverse camp is constantly possessed. These reprisals are, however, things of the past; and of late the Professor has supplied an excellent example of the patient bearing of the cross. This might have continued indefinitely had not a recent attack of more than ordinary bitterness, supported by sweeping misstatements and championed by three clergymen, roused the long-suffering Professor to an energetic vindication of his own position in the matter. In a lengthy letter addressed to the local papers Professor Rutherford details the causes, nature, and results of his experiments on the liver, concluded some eight years ago, which have received wide recognition as of great scientific value, and which have since proved a never-failing source of bitterness to his opponents. What his present defence lacks in "wingéd" words, it more than makes up for in the calmness of its statements and the clearness of its reasoning; and, although public discussion of professional topics is apt in general to do more harm than good, as it usually lowers professional dignity, it is still to be hoped that, in the present instance, the public mind may be stimulated to reject the nauseous bolus of narrowness and fallacy which has of late been so vigorously thrust upon it.

CHARITIES AND THE POOR LAW.

Last week a public conference on the above subject was held in Edinburgh, at which several important papers were read by gentlemen whose position gave them the authority of specialists. Amongst other topics, the prevailing custom of employing paupers as nurses in union infirmaries was discussed, and all but unanimously condemned.

Edinburgh, May 5th.

PARIS.

(*From our Paris Correspondent.*)

PROFESSOR VULPIAN AND THE RECENT EXPERIMENTS ON THE SEVERED HEADS OF CRIMINALS.

THE question has again been mooted as to whether those who have been decapitated suffer; and after additional experiments on the head of Gamahut, who was guillotined on the 24th ult. for the murder of a widow lady in Paris, coupled with those related by Claude Bernard, the presumption is that they do, for under the influence of transfused blood the blanched features recovered almost their normal expression, the eyelids were slightly open, and the lips quivered for a few seconds, as if to express some perception communicated from the brain. The conclusion, then, is that, so long as the brain contains any blood, the head of the decapitated person, which falls into a receptacle prepared for the purpose, is capable of seeing, of hearing, and of knowing that it is separated from the body. This view, however, was repudiated by Professor Vulpian at the last meeting of the Academy of Medicine on the following grounds:—A strong blow applied to the head, or a less severe one to the stomach, would cause instantaneous syncope; that is to say, consciousness would for the moment be entirely abolished. So it would be in the case of the severed head, but of course without any possibility of recovery; the weight of the guillotine falling upon the neck would produce the same result. Moreover, syncope would be occasioned by the sudden division of the carotid arteries, and the consequent emptying of the arterial system of the brain. Therefore, at the very moment that the brain ceases to receive the vivifying fluid from the heart, it loses all power of excito-motility, as well as all power of sensation; all this transpires as quickly as thought, and its duration may be compared to a flash of lightning. It happened opportunely that a dog that was undergoing some experiments in Professor Vulpian's laboratory was suddenly seized with hæmorrhage. Advantage was taken of this circumstance to immediately expose the brain and submit the latter to faradisation. Scarcely half a minute had elapsed between the arrest of the circulation and the galvanic irritation. It was impossible to obtain any movements in the legs. The effects of the electricity produced in the muscles of the head and nose were not, according to Professor Vulpian, due to the physiological transmission effected by the brain, but to the neighbourhood of the source of irritation; the brain, having lost all power of excito-motility, would in this case act as a mere sponge; and if such a condition was found to exist for only half a minute after the arrest of the circulation, the interpretation

put on the effects said to be produced on severed heads by other experimenters must certainly be considered erroneous.

THE MICROBES OF CHOLERA DEJECTIONS.

Dr. Bochefontaine is persevering in his efforts to prove the innocuousness of the microbes cultivated in the diarrhœa of cholera patients, whether they be introduced into the system by the stomach or by hypodermic injection. He cultivated the microbes of the diarrhœal liquid in peptonised gelatine, with which he performed a series of experiments. At four different times he swallowed a quantity of this gelatine, containing bacilli of the second and third cultures, without feeling in the least any abnormal phenomena. In the next place, he injected hypodermically into guinea-pigs, and then into himself, a mixture composed of equal parts of water and of cultivated gelatine. These different experiments would, according to the author, show that the ingestion of the cultures of cholera microbes may not produce any morbid symptom in man; they prove that the hypodermic injection of these cultures in man and in animals may, if they are injected in comparatively large doses, produce inflammatory phenomena of a more or less grave character. If, on the contrary, the proportion of the microbic culture is weak, the injection produces no effect whatever. If we compare the results of these experiments, in which were employed microbic cultures, with those that were furnished by ingestion by the stomach and by the hypodermic injections of diarrhœal liquid, which formed the subject of a previous communication made by Dr. Bochefontaine (see my letter in THE LANCET of Nov. 22nd last), we are led to believe that the physiological troubles produced by this liquid are due to the action of a special substance, and not to the development of the microbic germs which it contains. These experiments further show that the blood of man and of animals in a normal state possesses the property of destroying the microbes of the diarrhœal liquid of cholera patients cultivated in peptonised gelatine.

Paris, May 5th.

SHIRLEY MURPHY TESTIMONIAL.

Amount of first Subscription List £118 5 0

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The Executive Committee of the Shirley Murphy Testimonial Fund have, since Mr. Murphy's return to England, had the opportunity of ascertaining his wishes with regard to the movement which had been inaugurated during his absence, and in deference to his desire, they do not intend to proceed further with the presentation of a testimonial. The course which will be adopted in the disposal of the fund must necessarily be in the hands of the subscribers, who, we understand, will be immediately consulted. The Committee, however, propose to forward to Mr. Murphy an address as previously stated.

THE SERVICES.

THE RUMOURED EMPLOYMENT ON ACTIVE SERVICE OF CIVIL SURGEONS.

We are authorised to state that the rumour to which we referred in our last issue as to arrangements having been made for the employment on active service of civil surgeons at £3 per day is incorrect. No such posts are being made, or are in contemplation on the terms stated.

INDIA OFFICE.—The Queen has approved of the transfer to the half-pay list of Surgeon George Augustus Cones, of the Bengal Medical Establishment.

ADMIRALTY.—Staff Surgeon Michael Upington Greany, M.D., has been placed on the retired list of his rank.

The following appointments have been made:—Staff Surgeon Robert Grant, to the *Pembroke;* Staff Surgeon Robert W. Biddulph, to the *Orontes;* Staff Surgeon Richard V. M'Carthy, to the *Rupert;* Staff Surgeon Cecil Drake, to the *Duncan;* Staff Surgeon George Curtis, to the *Devastation;* Staff Surgeon Nicholas T. Connolly, to the *Ajax;* Staff Surgeon Mark A. Harte, to the *Hotspur;* Staff Surgeon William B. Fletcher, to the *Repulse;* Surgeon Frederick J. Lilly, to the *Devastation;* Surgeon George F. Dean, to the *Hotspur;* Surgeon George Welch, to the *Ajax.*

YEOMANRY CAVALRY.—Suffolk: Surgeon Robert Macnab, M.D., resigns his commission.

ARTILLERY VOLUNTEERS.—1st Worcester: Surgeon Geo. Wyndham Crowe, M.D., resigns his commission; Acting Surgeon Robert William Edginton, M.D., to be Surgeon.

RIFLE VOLUNTEERS.—2nd Cheshire (Earl of Chester's): Henry William King, Gent., M.D., to be Acting Surgeon.—10th Lanarkshire (Glasgow Highland): Donald Campbell Black, Gent., M.D., to be Acting Surgeon.—1st Volunteer Battalion, the Worcestershire Regiment: Arthur Robert Waddell, Gent., M.D., to be Acting Surgeon.

MEDICAL NOTES IN PARLIAMENT.

Cremation.

IN the House of Lords, on the 5th inst., the Earl of Dalhousie, in reply to the Earl of Onslow, stated that the Government did not consider it any part of their duty to encourage or to discourage the practice of cremation. The Government possessed no power at present to act in the matter.

Medical Act (1885) Amendment Bill.

In the House of Commons, on the 30th ult., Dr. Lyons moved the second reading of the Medical Act (1858) Amendment Bill. On the motion of Mr. T. P. O'Connor the debate was adjourned.

Burgh Police and Health (Scotland) Bill.

On the 1st inst. the following were named to act on the Select Committee on this Bill:—The Earl of Mar and Kellie, the Earl of Minto, Lord Balfour of Burleigh, the Duke of Argyll, the Marquis of Lothian, the Earl of Dalhousie, and the Marquis of Tweeddale.

Small-pox at West Ham.

Mr. G. Russell, in reply to Mr. Hopwood, said that there had been a severe epidemic of small-pox in the West Ham sub-district, and the returns for the last three years showed that the number of children unaccounted for, as regards vaccination, had been greater than in other districts in the neighbourhood of the metropolis. There had been insufficient hospital accommodation in the district; but, apart from that, he was not aware that defects in sanitary precautions had been the cause of the disease and mortality.

The Volunteer Medical Staff Corps.

On the 4th inst. the Marquis of Hartington, replying to Sir S. Northcote, said that an application had been received by the War Office from the officers of the Edinburgh University Volunteer Medical Staff Corps, asking that the corps might be included in the new Volunteer Medical Staff Corps. The Volunteer Medical Staff Corps was in some sense an experiment, and although it was hoped to extend the scheme, it was not considered desirable that there should be more than one corps at present.

Vaccination.

Mr. G. W. Russell, in reply to Mr. Hopwood, stated that at the Sheffield Hospital in 1882 the medical officer and a ward-servant who had both been revaccinated had attacks of small-pox so mild that scarcely any rash appeared. The cook, who had not been revaccinated, but who had previously had small-pox, had an attack in a modified form. The only severe case in the hospital at the time was that of a patient who had never been vaccinated; this patient died. A nurse who had not been revaccinated had an attack of a qualified nature, and the only severe case was that in which the patient had not been vaccinated and died. In reply to an inquiry by Mr. Hopwood as to whether he had communicated to the authors of the "Facts concerning Vacci-

nation," published with the sanction of the Local Government Board, his view of the unguarded nature of the statement that no hospital nurse had been attacked with small-pox after revaccination, Mr. Russell replied that the National Health Society had been informed of the reply which was given on the subject on the 31st of March last.

Sewage Works at Tottenham.

On the 5th inst., Mr. Russell stated, in answer to a question by Mr. J. Stuart, that the Local Government Board have sanctioned a loan of £13,000 for works in connexion with the sewage outfall of the Tottenham district, with a view to the purification of the sewage before it is discharged into the Lea.

Small-pox Hospitals.

In the House of Commons on Thursday, Mr. Russell, in reply to Sir Lyon Playfair, who asked whether in the case of officers and servants for the service of the Metropolitan Asylums Board hospitals a proper interval was always allowed to elapse between their revaccination and their entering on their duties, and whether it was the fact that certain officers or servants at the Fulham Small-pox Hospital had entered on their duties without revaccination, said that inquiry had been made, and it was found that in the case of the North-Western, South-Eastern, and South-Western Hospitals an interval is allowed to elapse between the revaccination of the officers and servants and their entering on their duties. In the first-mentioned hospital the interval is stated to be forty-eight or seventy-two hours. As regards the Eastern Hospital, it has been the custom to revaccinate the officers and servants on the day of arrival at the hospital or the day following. At the hospital ships no interval elapses between the revaccination and exposure to small-pox infection. At the Western or Fulham Hospital the officers and servants are usually revaccinated on the day of their entering on their duties. There have, however, since May, 1884, been two instances in which the revaccination was not performed until some days after the assistants had commenced discharging their duties, and this was in consequence of an omission to report the cases to the medical superintendent.

The Health of the Troops on the Nile.

Lord Hartington, in answer to questions by Viscount Lewisham and Colonel Dawnay, said he telegraphed to Sir Redvers Buller an inquiry with reference to statements which had appeared in the *Standard*, and received a reply that the hutting was not finished at Debbeh, Merawi, and Kurot, but would be this week. The troops had had day shelter for more than three weeks. The percentage of sick was 7·1 per 100; the health of the troops was not very good, but it was not materially worse than at the time of the last report, on April 15th.

Obituary.

EDWARD T. TIBBITS, M.D. LOND.

AT Bradford, Yorkshire, on April 14th, at the age of forty-five years, Dr. Tibbits fell a victim to acute pneumonia. Worn out by an anxious attendance upon his eldest daughter, through an attack of the same disease, he became an easy prey himself. After ten years of anxiety—which those alone can appreciate who have struggled and waited for the slow growth of consulting practice,—the subject of our notice was called away just as the sky looked brighter, and as the fruits of patient labour appeared almost to be within his reach. In him the town of Bradford, and especially the medical charities, have sustained a grievous loss, which it will be difficult to make good.

Dr. Tibbits was educated at Repton School, and at University College, London. As a student, he held the posts of physician's assistant to Sir William Jenner and ophthalmic assistant to Mr. Wharton Jones at University College Hospital, clinical assistant at the Brompton Consumption Hospital, and house-surgeon to the Coventry and Warwickshire Infirmary. He gained the exhibition and gold medal in Chemistry in 1860 at the 1st M.B. Examination of the University of London, and passed his M.D. in 1869. Ten years ago he relinquished general practice at Rugeley in Staffordshire, chiefly on account of health, and was elected physician to the Bradford Infirmary, and a little later to the Fever Hospital and to the Institution for the Blind. These institutions he served faithfully to the time of his fatal illness. In 1879 and 1880 he was president of the Bradford Medico-Chirurgical Society, and always took a lively interest in its proceedings.

Naturally unpretentious and modest, yet somewhat impulsive and obstinate in nature, and possessing at all times the courage of his opinions, it was no easy matter to turn him aside, or to prevent him from carrying out any measure which he believed to be right. Cultured and refined as he was, he gathered round him a large circle of friends, who deeply regret their loss.

He was twice married, and has left behind him a widow and nine children, who, from no fault of his, are almost absolutely without provision for the future.

During his later years Dr. Tibbits held very decided views on the germ theory of disease, and on the bacillar hypothesis of woolsorters' disease in particular. He was a frequent contributor to the pages of THE LANCET, and notably a paper on the "Modern Theory of the Action of Digitalis" (THE LANCET, 1881). In religion he was a staunch Churchman and in politics a Liberal Conservative. Dr. Tibbits was buried at Clayton Church on April 17th, when large numbers of his fellow-townsmen attended to pay tribute to his memory.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Members of the College on the 30th ult.:—

Ball, James Barry, M.D. Lond., Belgrave-road.
Batten, Rayner Winterbotham, M.D. Lond., Gloucester.
Davies, Arthur Temple, M.B. Camb., Finsbury-square.
Gamgee, Arthur, M.D. Edin., Manchester.
Griffiths, Herbert Tyrrell, M.D. Camb., Brook-street.
Martin, Sydney Harris Cox, M.D. Lond., Gower-street.
Phillips, John, M.B. Camb., Harley-street.
Rockwood, William Gabriel, M.D. Madras, Colombo, Ceylon.
Stewart, Edward, M.D. Brussels, Harley-street.

On the same day the following were admitted Licentiates:—

Anderson, James, M.D. Toronto, Portland-road, Dublin.
Armstrong, Hugh, Chalcot-crescent.
Barber, Halford Vaughan, Sandmere-road.
Barendt, Frank Hugh, Hampstead-road, Elm-park, Liverpool.
Basset, Walter, Knowle-road, Bristol.
Berkley, Ernest James Gibson, Camberwell-road.
Bird, Henry, Vicarage Villas, Neasdon.
Blight, John Henry, Chobham-road.
Booth, William Henry, Plymouth.
Bown, John Quinton, St. Mary's Hospital.
Browne, Harold Elliott, University-street.
Caley, Guthrie Neville, Clarence Villas, Windsor.
Childe, Charles Plumley, Bexhill, Hastings.
Clarke, Fincastle George Barlow, Fordwych-road.
Clift, Samuel Leonard, Tressilian-crescent.
Coleman, William Edward, Albert-street.
Cooper, Charles Bolingbroke, Gambier-terrace, Liverpool.
Cressy, Rolf, Guy's Hospital.
Emmett, Richard, St. George's Hospital.
Fowler, Charles Owen, London Fever Hospital.
Freeland, Ernest Harding, Middlesex Hospital.
Gentles, Thomas Lawrie, Derby.
Green, Charles Robert Mortimer, Rotherhithe New-road.
Growse, William, Bethlem Hospital.
Harcourt, Vincent Ximenes, Duncan-terrace.
Howard, Herbert, Trinity-square.
Hugill, George Frederick, Rosedale, Chislehurst.
Jackson, Herbert Francis, Talbot-road.
Jackson, Percy Vaughan, Portadown-road.
Jessop, Edward, St. Bartholomew's Hospital.
Kershaw, James Edward, Brompton-square.
Kidd, Hugh Cameron, Leamington-road Villas.
Lamb, Hugh, St. Thomas's Terrace.
Lee, William John, Harcourt-road, Brockley.
Lipscomb, Edgar Richard Senhouse, Southwark-park-road.
Lysaght, William Conner, Frederick-place, Clifton, Bristol.
Mathew, Charles Pynsent, Milman-street.
Mathews, Frank Edward, Lansdowne-terrace, Richmond, Surrey.
Maynard, Frederick Pinsent, Barnes.
Meeson, Alfred, High-park-street, Liverpool.
Morris, Herbert Mackinlay, Henrietta-street, Covent-garden.
Norris, Edwin John, Barndale-road.
Nutting, Philip Henry, Lady Margaret-road.
Page, Harry Marmaduke, Westbourne-park.
Phillips, Lawrence W. Kinglake, Hove Dispensary, Brighton.
Pitcairn, James, Lambeth-palace-road.
Pinhorn, Richard, Warwick-gardens.
Plowman, Sidney, St. Thomas's Hospital.
Rhys, Watkin Llewellyn, Crofton-road.
Roberts, Henry, Colebrook-row.
Smith, Frederick John, Bishopsgate Without.
Southern, Francis Gerald, Ludlow.

Scutter, James, Hull.
Steer, Adam William Thorburn, St. Bartholomew's Hospital.
Tanner, Herbert, St. Mary's Hospital.
Underwood, John Charles, Ashford.
Walsh, Charles Lawrence, St. Bartholomew's Hospital.
Whishaw, Reginald Robert, Cornwall-street.
Williams, John Frederick, Infirmary, Westmoreland-road.
Willis, Arthur Keith, West End-lane.
Willoughby, Alfred Harvey, Aberdeen-place.
Wunderlich, Otto Frederick, St. Luke's Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 30th ult.:—

Ackland, Charles Kingsley, L.S.A., Bideford, Devon.
Curgenven, John Sadler, L.S.A., Craven-hill-gardens.
Fooks, Henry, L.S.A., Kennington.
Gould, Ernest Edward, L.S.A., Exeter.
Lewis, Jenkyn, L.S.A., Llanon, Cardiganshire.
Richards, George William, M.B. Durh., Stourbridge.
Ritchie, Edward Duguid, L.S.A., Wimbledon-park.
Stedman, Frederick Osmund, L.S.A., Leatherhead.
Willan, Leonard James, L.S.A., Stoke Newington.

Admitted on the 1st inst.:—

Clift, Samuel Leonard, L.R.C.P.L., St. Johns.
Farmer, William Henry Francis, Anerley.
Grueby, Charles William de, L.R.C.P.L., Ludlow.
Hehir, Patrick, L.R.C.P. Ed., Calcutta.
Howard, Herbert, L.R.C.P.L., New Beckenham.
Lee, William John, L.R.C.P.L., Devonport.
Martin, Joseph Henry Walklate, L.S.A., St. Albans.
Pietersen, James, L.R.C.P.L., Lambeth-palace-road.
Pinhorn, Richard, L.R.C.P.L., Warwick-gardens.
Roberts, George Augustus Edward, L.S.A., Twyford.
Smith, John Turville, L.S.A., Manchester.
Steer, Adam Wm. Thorburn, L.S.A., Jamaica.
Sutton, Alfred, L.S.A., Brockley.
Tronson, William Francis, L.S.A., Oxford-gardens.

Admitted on the 4th inst.:—

Bown, John Quinton, L.R.C.P.L., Nottingham.
Chick-Lucas, James Robb Goodman, Portsea.
Elkington, Henry Percival George, Gillingham-street.
Ellis, Donald Mackay, Chudleigh.
Fegen, Charles Milton, Bedford.
Godfrey, Henry William, M.B. Aberd., Hornchurch.
Hartham, Herbert Dumville, Sandbach, Cheshire.
Henderson, George Christopher, Natal.
Lever, Frederick, Epsom.
Lewis, Charles James, Liverpool.
Moore, Walter Francis, Preston.
Parsons, Henry Compton, Hampton Wick.
Pearson, Albert Edward Alexander, Horsforth, near Leeds.
Postlethwaite, Frank, Oxford-road.
Pott, Francis Henry, Cornwall-gardens.
Wethered, Frank Joseph, L.S.A., Clifton.
Woods, Frank, Warrington.

Admitted on the 5th inst.:—

Apthorp, East, Hornsey.
Austin, Herbert Ward, Devonport.
Beard, Frederic, Trinity-square.
Calrow, Thomas, Bury, Lancs.
Eales, George Young, Yealmpton, Devon.
Jabbour, Habeeb, Beyrout.
Jervis, Arthur, Connaught-square.
Podmore, Robert, Eastbourne.
Pratt, George Arthur, Wolverhampton.
Price, Alfred Edward, Clapham.
Pritchard, Joseph James Gauler, Blackheath.
Ramsay, Herbert Murray, Redhill.
Scott, George Henry, Osset, Yorks.
Tuke, Thomas Seymour, Albemarle-street.
Whishaw, Reginald Robert, Liscard, Cheshire.

Admitted on the 6th inst.:—

Bent, George, Gladstone-street.
Bindloss, Edmund Frederick, Leighton-road.
Calvert, James, Grenville-street.
Clark, John Stallard Foot, Saltash, Cornwall.
Dill, Robert Charles Gordon, Burgess-hill.
Dornford, Charles Thomason, L.R.C.P. Ed., Wantage.
Green, Albert, Forest-hill.
Halley, Percy Oswald Ward, Newport Pagnell.
Helps, George Crawford, Weston, near Bath.
Knaggs, Francis Henry, Putney.
Richmond, William Stephenson, Stanwick-road.
Scatliff, Philip Melanethon, Macaulay-road.
Smith, George Francis, St. Anne's-terrace.
Wylde, Harry Frank, Manchester.

UNIVERSITY OF OXFORD.—At a congregation held on the 1st inst. the degree of M.D. was conferred on

Lloyd, Francis, Jesus.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 1st inst. Dr. P. H. Pye-Smith was appointed an elector to the Professorship of Physiology, and Professor Robertson Smith was appointed an elector to the Professorship of Sanskrit. The degree of M.D. was conferred on

Lane, James Oswald, St. John's.
Lyon, Thomas Glover, Emmanuel.

UNIVERSITY OF GLASGOW.—The following gentlemen passed the Third Professional Examination for the degrees of M.B. and C.M. in April last:—

Adam, Basil J.
Aird, Alex. W.
Alexander, W. M., M.A., B.Sc.
Beattie, Robert M'G.
Brown, James A.
Brown, Walter F.
Campbell, Arch. T.
Carmichael, Alex.
Crawfurd, Robert K. B.
Cullen, John R. F.
Currie, John.
Davidson, James F.
Davis, George W.
Dewar, Daniel M'K.
Duff, Jas. K., M.A.
Fergus, Wm. Henry.
Gardner, R. Irvin.
Goff, Bruce E.
Haddow, R. W. T.
Hamilton, Robert.
Hay, Walter.
Henry, Robert.
Hickin, Herbert.
Manners, Wm. H.
Marshall, John.
Marshall, William.
Mathieson, Alex. L.
Miller, Alfred E.
Monteagle, Henry W. B.
MacColl, Donald S.
M'Conechy, James.
M'Heul, Hugh M.
MacKechnie, C. A.
MacKeith, Alex. A.
MacKeith, John.
M'Lachlan, James.
MacLeod, David T.
Macquarie, John A.
Pyle, William.
Ramsay, Robert.
Ritchie, John.
Robertson, Robert.
Robertson, William.
Rowat, John.
Roxburgh, Alex.
Sinclair, H. W.
Stewart, John (Renfrew).
Steil, James W. H.
Thorburn, John.
Wallace, Wm. (Glasgow).
Wallace, Wm. (Greenock).
Watson, James.
Wyllie, James.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 30th ult.:—

Curgenwell, John Sadler, St. Bartholomew's Hospital.
Gaudevia, Merwanjee Nowrojee, Bombay.
Graham, Charles Nicol, Guy's Hospital.
Pinhorn, Richard, St. George's Hospital.
Roberts, Arthur, London Hospital.
Smith, John Turville, Manchester School of Medicine.
Sutton, Alfred, Guy's Hospital.

At the Preliminary Examination in Arts held at the Hall on April 30th and May 1st and 2nd, the following candidates were successful:—

FIRST DIVISION.

*Lindsay, Herbert Stott. | *Stradling, Henry R. Skynner.

SECOND DIVISION.

Aylward, Walter Charles.
Biddle, Henry George.
Blakeman, Charles Smith.
Bromley, Francis Edward.
*Burditt, Ralph Austin.
Cory, Ernest Richard.
Dryland, Leslie Winter.
Elgee, William.
Farncombe, Wm. Turberville.
Goddard, Bertram.
Harrison, Chas. Alan.
*Jones, Frederick Warner.
Kirby, William Owen.
*Livesey, Edgar Wm.
Marder, Nicholas.
Mole, Alfred Ernest.
Montagu, William.
McTaggart, Norman E. B.
*Osborne, Oswald.
Parish, Beauchamp Frederick.
Pearce, Charles Ross.
Richards, J. Barrow Osborn.
Steele, Geo. Herbert.
Templeton, Percy.
Wade, Albert Holland.
Yonge, Eugene.

* Passed also in Elementary Mechanics.

Passed in Elementary Mechanics alone:—

Andrew, Francis William.
Gane, E. Palmer Steward.
Greene, Arnold James.
Linstead, Edward Flatman.
St. Cedd, R. G. Whitworth.
Smith, Alfred.
Spilsbury, Frank Hands.
Webb, Frank.

Passed in Greek alone:—

Fraser, Frank. | Fraser, Elias.

Passed in German alone:—

Newington, John S.

Passed in Chemistry alone:—

Andrew, Francis William.

THE Prince of Wales has contributed one hundred guineas to the Dublin Hospital Sunday Fund.

THE annual conversazione of the Royal Society was held on the 6th inst.

WESTMINSTER HOSPITAL.—The Frederick Bird Prize and Medal for 1885 have been awarded to Mr. Alfred S. Gubb.

THE PHARMACEUTICAL SOCIETY.—The annual dinner of this Society will be held at the Holborn Restaurant on the 19th inst., at 6.30 P.M.

ROYAL INSTITUTION.—Professor Odling will give the first of two lectures on "Organic Septics and Antiseptics" on Saturday, May 16th.

THE Committee of the Leeds Harehills Cycling Club, being strongly of opinion that members intending to compete in the road competitions arranged for by the Club should be physically fit, recommend that all intending competitors furnish medical certificates to the secretary at the time of entering.

SUPERANNUATION.—Mr. E. N. Sison, late medical officer of the eleventh district of the Holborn Union, has been granted a superannuation allowance of £70 a year.

THE *Cronica Medica* of Lima, Peru, states that during the month of January there were thirty-seven deaths in that city from small-pox, thirty-two of the victims being under twelve years of age.

THE festival dinner in aid of the funds of the North London or University College Hospital will be held at the Langham Hotel on the 13th inst., His Royal Highness the Prince of Wales in the chair.

PRESENTATION.—Dr. Raitt, who delivered a series of "First Aid to the Injured" lectures for ladies at Manchester, has been presented by the members of the class with a marble timepiece and an address.

THE ABERDEEN CLUB.—The next half-yearly dinner of the Aberdeen University Club, London, will be held at the Venetian Salon, Holborn Restaurant, on Saturday, May 16th, at 7.45 P.M., the Earl of Aberdeen in the chair.

ON the 2nd inst. the body of Dr. Phelps of Exeter was found wedged between two rocks at Ness, Teignmouth. It is supposed that while walking home from a picnic he was seized with heart disease and fell into the water.

THE festival dinner in connexion with the Royal Hospital for Children and Women, Waterloo-bridge-road, will be held at Willis's Rooms on the 13th inst., His Royal Highness the Duke of Cambridge, K.G., in the chair.

AT the annual meeting of the Metropolitan and National Nursing Association for providing trained nurses for the sick poor, on the 1st inst., it was stated that during the past year 527 cases had been nursed, and 17,374 visits paid.

AT the 14th anniversary of the Brighton Young Men's Christian Association, Professor Drummond from Glasgow attended, and delivered two addresses in the banqueting-room of the Royal Pavilion. A deputation of medical students and others from Edinburgh University have also been holding special services, which have proved highly successful.

MEASLES IN CHESTER.—The alarming outbreak of measles in Chester continues to spread, and two of the largest schools in the city have just been closed. The disease has broken out in Mrs. Gladstone's Home for Children at Hawarden, and at least one of the inmates has been removed to the Chester Infirmary. Sixteen deaths have already been registered since the epidemic set in.

THE GERMAN HOSPITAL.—The fortieth anniversary dinner in aid of the funds of this institution was held on the 6th inst., when it was stated that a total of 24,500 patients had been treated during the past year. Of the 1822 in-patients admitted during the year, 353 were accident cases, most of them being English. During the evening subscriptions, and donations amounting to £3473 were announced by the secretary.

THE DEVONSHIRE HOSPITAL AND BUXTON BATH CHARITY.—The annual general meeting of the supporters of this institution was held on the 2nd inst., when an exhaustive account of the great and increasing usefulness of the charity was read by Dr. Robertson. During the past year 2491 in-patients were admitted, exceeding the number received during 1883 by 261. The average number of patients daily resident in the hospital was 157·1.

ANTHROPOLOGICAL INSTITUTE.—At a meeting of this Society on the 28th ult. the following papers were read:—By Mr. A. L. Lewis, on the Past and Present Conditions of certain Rude Stone Monuments in Westmoreland; by Admiral F. S. Tremlett, on Quadilateral Constructions near Carnac, in which was described certain enclosures explored by the late Mr. James Miln; and by M. Jean L'Heureux, on the Kekip-Sescators, or ancient sacrificial stone of the north-west tribes of Canada.

IMPORTANT CIRCULAR TO THE POLICE.—Consequent upon the numerous representations which have been made with reference to the treatment of persons arrested for alleged offences, and especially to prevent a recurrence of the mistakes which have been made when prisoners suffering from illness have been treated as drunken persons, the Secretary of State has issued a circular to the police authorities throughout the kingdom, directing that strict orders should be given to the police that when any prisoner complains of illness, shows symptoms of illness or of being in a feeble state of health, whether he make complaint or not, the police-surgeon should be summoned and the prisoner medically examined. If the prisoner is found to be suffering from serious illness, a report as to his health is to be presented to the magistrates before whom he is brought.

ON the 23rd ult. an inquest was held on the body of George Webb, M.D., who was found dead at his residence, 101, Hollydale-road, Peckham. Dr. Webb was well known in the district, and a few days before his death had himself attended as a witness at a coroner's inquest. Death was certified to be due to fatty degeneration of the heart.

SANITATION IN HOLBORN.—On the 23rd ult., an inquiry was held by Mr. Cubitt-Nicholls, from the Home Office, as to an official representation made by the Holborn District Board of Works, with a view to obtain an order directing the Metropolitan Board of Works to deal with an unhealthy area adjoining Brook's Market, as a metropolitan improvement. Evidence was given as to the shocking sanitary condition of the locality, it being stated that the population was 232, and that during two years there had been 154 cases of sickness—scrofulous cases, sore throats, or cases of consumption not being included in this number. The court rose after a sitting of seven hours.

TELEPHONE AND TELEGRAPH WIRES.—On the 27th ult. Sir Joseph Bazalgette was examined before the Select Committee of the House of Commons, who are inquiring into the law controlling the overhead and underground wires. Sir Joseph stated that the system of overhead wires was first commenced twenty years ago. At that time there were no underground wires. There were now 800 miles of overhead wires in the metropolis, and ten times that quantity of underground wires. He would give the power of making bye-laws to the Metropolitan Board of Works, the district authorities merely acting as the executive, without any appeal to a Government department. Under the Building Act, which divided London into seventy-two districts, with a surveyor to each, they had all the machinery necessary for dealing with this question.

UNIVERSITY OF LONDON.—At the meeting of the Senate of the University of London held last week the following gentlemen were elected examiners for 1885-86:—Chemistry: Professor J. Emerson Reynolds, M.D., F.R.S.; Professor T. E. Thorpe, Ph.D., F.R.S. Botany and Vegetable Physiology: Professor Bayley Balfour, M.D., D.Sc., F.R.S.; Professor F. O. Bower, B.A. Comparative Anatomy and Zoology: Professor E. Ray Lankester, M.A., F.R.S.; Professor Alex. Macalister, M.D., M.A., F.R.S. Practice of Medicine: W. H. Broadbent, M.D.; W. Miller Ord, M.D. Surgery: W. M. Baker, Esq.; Sir William Mac Cormac, M.Ch., M.A. Anatomy: Professor D. J. Cunningham, M.D., C.M., F.R.S.E.; H. Greenway Howse, M.S., M.B. Physiology: Professor Arthur Gamgee, M.D., F.R.S.; Professor Gerald F. Yeo, M.D. Obstetric Medicine: F. H. Champneys, M.A., M.B.; John Williams, M.D. Materia Medica and Pharmaceutical Chemistry: J. Mitchell Bruce, M.D., M.A.; T. Lauder Brunton, M.D., D.Sc., F.R.S. Forensic Medicine: Augustus J. Pepper, M.S., M.B.; Professor George Vivian Poore, M.D., B.S.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BAILEY, C. F., M.B.Lond., M.R.C.S., has been appointed House Physician to the West London Hospital.

BARNARD, ARTHUR J., M.R.C.S., L.R.C.P.Ed., Junior House-Surgeon to the Darlington Infirmary, has been appointed Junior House-Surgeon to the Royal Albert Edward Infirmary, Wigan, Lancashire, vice John Buchanan, M.B. and C.M.

BENHAM, HENRY JAMES, M.D.Lond., M.R.C.S., has been appointed Physician to the East Suffolk and Ipswich Hospital.

BUCHANAN, JOHN, M.B. and C.M.Glas., Junior House-Surgeon to the Royal Albert Edward Infirmary, Wigan, Lancashire, has been appointed Senior House-Surgeon at the same, vice John Henry Jackson, M.B. and C.M.Ed., resigned.

FLINN, JOHN JAMES, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Everton No. 1 District of the West Derby Union, vice Worrall, resigned.

GODFREY, FRANK, L.R.C.P., L.R.C.S.Ed., has been appointed Honorary Consulting Surgeon to the Islington Dispensary.

HARPER, ALEXANDER, M.B.Dur., M.R.C.S., has been appointed House-Surgeon to the West London Hospital, vice Maitland Thompson, L.R.C.P.Ed., L.M., M.R.C.S., resigned.

HOLLIS, ELPHINSTONE, M.D., C.M.Ed., has been appointed Physician to the East Suffolk and Ipswich Hospital.

MARSHALL, WILLIAM, M.R.C.S., L.S.A.Lond., has been appointed Junior House-Surgeon to the Huddersfield Infirmary.

POPE, PERCY, M.R.C.S.Eng., L.R.C.P.Ed., has been appointed Poor Law Medical Officer, Public Vaccinator, &c., for the Hayling (North and South) District of the Havant Union.

SHAW, WILLIAM, M.R.C.S., has been appointed Medical Officer of Health for the Shire of Barrabool, Australia.

SHILLITOE, RICHARD, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the First District of the Hitchin Union, vice R. R. Shillitoe.

SIMMONS, HAROLD, L.R.C.S., L.S.A.Lond., has been appointed Physician Assistant to the Middlesex Hospital.

VERRALL, THOS. JENNER, L.R.C.P.L., M.R.C.S., has been appointed Assistant-Surgeon to the Sussex County Hospital.

WARNER, FREDERICK A., M.R.C.S., L.S.A.Lond., has been appointed House-Surgeon to the West London Hospital, vice James Herbert Menzies, M.R.C.S., L.S.A.Lond., resigned.

WATSON, ARCHIBALD, M.D.Paris, M.R.C.S., L.S.A.Lond., has been appointed Professor of Anatomy at the New School of Medicine, Adelaide University.

WOOD, PERCY MOORE, L.R.C.P.Lond., M.R.C.S.E., J.P.S.A., has been appointed Government Medical Officer and Protector of Aborigines for the Port Darwin Northern Territory, South Australia.

Births, Marriages, and Deaths.

BIRTHS.

BARRACLOUGH.—On the 21st ult., at Dulwich-road, Herne-hill, S.E., the wife of R. W. Sutton Barraclough, M.D., of a son.

BOTHAMLEY.—On the 26th ult., at Bromley, Kent, the wife of R. Broughton Bothamley, M.R.C.S., of a son (stillborn).

BRIDGMAN.—On the 1st inst., at Crossdale Bank, Slaidburn, Yorkshire, the wife of Mr. Herbert A. Bridgman, L.F.P.S.G. and L.M., of a daughter.

COLLIER.—On the 2nd inst., at Capstone House, Hammersmith, the wife of N. C. Collier, L.R.C.P., of a daughter.

PRINGLE.—On the 29th ult., at Angelton, Bridgend, the wife of H. T. Pringle, M.D., Medical Superintendent of the Glamorgan County Asylum, of a daughter.

TOWNSEND.—On the 27th ult., at Benares, the wife of Surgeon-Major Townsend, A.M.S., of a daughter.

MARRIAGES.

BURGESS—KEW.—On the 29th ult., at the Parish Church, Clapham, W. Milner Burgess, M.R.C.S., &c., of Harlesden, to Ellen Isabella, daughter of F. E. Kew, Esq., of Clapham.

CATON—IVORY.—On the 5th inst., at Christ Church, Edinburgh, Richard Caton, M.D., of Liverpool, to Annie, only daughter of the late William Ivory, W.S., of Edinburgh.

FARAKER—CREGEEN.—On the 28th ult., at Christ Church, Forest-hill, J. J. Faraker, M.R.C.S., L.S.A.Lond., to Ada J. Cregeen, third daughter of the late J. J. Cregeen, M.D., F.R.C.P.E., and step-daughter of W. Cregeen Faraker, M.R.C.S.E., L.S.A.Lond., Ravensdale, Forest-hill.

GARLICK—PETERKIN.—On the 30th ult., at St. Mary's Parish Church, Clitheroe, George Garlick, M.D.Lond., to Annie Gertrude, second daughter of William Peterkin, Craven Bank, Clitheroe.

STORRS—CROKER.—On the 30th ult., at St. Mary's, Penzance, Arthur Storrs, M.D., M.R.C.P.E., of Mexborough, Yorkshire, to Eliza Walters, youngest daughter of the late John Gifford Croker, M.D., F.G.S., of Bovey Tracey, Devon.

UNDERHILL—MURIEL.—On the 29th ult., at St. Giles's Church, Norwich, by the Rev. W. C. Muriel, Rector of Debden, Essex, assisted by the Rev. H. J. Underhill and the Rev. W. N. Ripley, Vicar of the Parish, Frederick Theodore Underhill, of Tipton, Staffordshire, son of W. Lees Underhill, Esq., J.P., of Tipton, to Beatrice Alice, second daughter of Charles Evans Muriel, Esq., of Norwich.

DEATHS.

BARBER.—Lost at sea, in February, in the Royal Mail steamer *Humber*, Alfred Barber, M.R.C.S., youngest son of Alfred Barber, of Eastrop House, Basingstoke, aged 28.

BUCHANAN.—On the 2nd inst., William Buchanan, M.D., of Church Gate, Cheshunt, Past Master of the Society of Apothecaries, in his 95th year.

CHAPMAN.—On the 3rd inst., at The Laurels, Chiswick, John Strange Chapman, M.D., Deputy Inspector-General of Army Hospitals, in his 86th year.

DITCHETT.—On the 30th ult., at Louth, Lincolnshire, William Edwin Ditchett, M.R.C.S., aged 40.

HIGGINS.—On the 6th ult., at Heathfield, Peel, Isle of Man, Henry Higgins, M.R.C.S., L.R.C.P., &c., aged 57.

HOWARD.—On the 30th ult., at Sandgate, Kent, John William Howard, M.R.C.S., L.A.C., L.M., in his 59th year.

HOYLAND.—On the 1st inst., at his residence, York-road, Hove, Brighton, Edward Hoyland, M.R.C.S., &c., formerly of Sheffield, aged 74.

MACLEAN.—On the 28th ult., at Portman-street, Portman-square, John Maclean, M.D., aged 68.

PHELPS.—On the 1st inst., at Teignmouth, suddenly, by an accident, F. P. Phelps, surgeon, of Victoria-terrace, Exeter, aged 52.

WHITE.—At Broad-street, Pendleton, J. Atkin White, M.R.C.S., L.S.A.Lond., aged 42.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, May 7th, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
May 1	29·73	S.W.	51	46	93	57	44	...	Bright
,, 2	29·65	S.W.	52	47	110	60	45	·02	Cloudy
,, 3	29·64	S.W.	52	48	97	63	44	·05	Hazy
,, 4	29·53	N.E.	50	47	95	59	46	...	Cloudy
,, 5	29·55	N.E.	45	44	...	50	44	·12	Raining
,, 6	29·35	S.W.	49	45	88	56	44	·19	Cloudy
,, 7	29·63	N.	45	41	85	54	41	·26	Cloudy

Medical Diary for the ensuing Week.

Monday, May 11.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

Tuesday, May 12.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

ROYAL INSTITUTION.—3 P.M. Prof. Gamgee: Digestion and Nutrition.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. The Right Hon. the Earl of Northesk: Exhibition of a Collection of Worked Jade from New Zealand.—Mr. J. H. Kerry-Nicholls: The Origin and Characteristics of the Maoris in the King Country, New Zealand.

Wednesday, May 13.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department: 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.

ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Mr. B. Wethered: Structure and Formation of Coal.—Mr. A. W. Waters: Use of the Avicularian Appendage in the Classification of the Bryozoa.

BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens as usual. Dr. Benington: Tetanus in the Puerperium.—Mr. Lawson Tait: Double Uterus, &c.—Dr. Biglow: Gynæcological Surgery.

Thursday, May 14.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Tyndall: Natural Forces and Energies.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8 P.M. Living Specimens. 8.30 P.M. Mr. W. A. Brailey: On the Condition of the Ciliary Nerves in certain Diseases of the Eye.—Mr. R. Nettleship: Note on the Spontaneous Disappearance of Diabetic Cataract.—Mr. J. B. Lawford: Case of Nævus of Choroid (with Microscopic Specimens).—Mr. Jonathan Hutchinson: On Reflex Ophthalmitis.—Mr. W. Spencer Watson: Intra-ocular Gumma in a Child the subject of Inherited Syphilis.—Mr. Simeon Snell: Case of Periodic Paralysis of Third Nerve.—Mr. W. H. Jessop: (1) Choroiditis Disseminata; (2) Rupture of Eyeball (living specimens).

Friday, May 15.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—7.30 P.M. Dr. W. N. Thursfield: On the Etiology of Goitre.—Mr. P. B. Atkinson: On an Outbreak of Diarrhœa traced to Polluted Water.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Dr. A. Hughes Bennett and Mr. R. J. Godlee: Case of Cerebral Tumour.

ROYAL INSTITUTION.—9 P.M. Prof. Burdon Sanderson: Cholera.

Saturday, May 16.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Odling: Organic Septics and Antiseptics.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

"TOLERANCE AND ADVANTAGE OF LARGE DOSES OF POTASSIUM IODIDE."

To the Editor of THE LANCET.

SIR,—In THE LANCET of April 18th, under the above heading, you quote from the *New York Medical Record* a case in which the dose of iodide was increased from eight to thirty grains three times a day. I think every one who has had much to do with syphilis must have met with cases in which larger doses were not only tolerated, but were necessary in order to obtain the desired effect. My own rule, when iodide is indicated and well borne, has long been to increase the dose more or less rapidly according to circumstances, until some effect is produced, quite irrespective of quantity. The largest daily dose I remember to have prescribed was 540 grains (iodide of ammonium); but I have no doubt more has been, or might be, required. He who holds his hand under the impression that he has given the iodides a full and sufficient trial because a certain number of grains or drachms has been reached, will fail to obtain some of the most important results which it is in the power of iodine to produce.—I am, Sir, yours faithfully,

Stafford-street, W., May 2nd, 1885. ARTHUR COOPER.

To the Editor of THE LANCET.

SIR,—In your issue of April 18th a case of tolerance of large doses of potassium iodide is recorded. In 1873 I had to treat a case of chronic ulcerated throat, supposed to be of syphilitic origin. The patient had been under treatment for some time without benefit from ten-grain doses of potassium iodide, when I increased the doses to twenty grains, and ultimately to forty grains, three times a day, with marked improvement. He took two-drachm doses for several weeks, until the throat had healed. On account of a slight relapse, he had to resume his old doses for a short time, afterwards reducing the amount to thirty grains twice a day. The patient took the latter quantity for several months. I prescribed it with aromatic spirit of ammonia, and he took each dose with half a pint of milk. What may be thought the most remarkable feature of the case is that he gained more than a stone in weight during the exhibition of the remedy—and the milk.

In contrast with the above, I have prescribed two-grain doses of potassium iodide for a stout, free-living patient on several occasions; but he always detects it, no matter what pains I take to disguise the fact of its administration. In this case it causes a nasty metallic taste.

I am, Sir, yours obediently,

Somerby, Oakham, April 27th, 1885. J. JACKSON.

Late Assistant.—We think decidedly that there is a moral obstacle to practising. Our correspondent undertook to sign a bond not to do so. That he was not asked to sign does not lessen the obligation not to practise.

Lex.—Authorities differ. There is no proof of it.

Surgeon-Major Sargent's paper will be inserted in an early number.

"IMPRISONING AN UNDOUBTED LUNATIC."

To the Editor of THE LANCET.

SIR,—I was pleased to see that you drew attention, in your issue of April 25th, to the case of poor Freund being imprisoned for bawling in St. Paul's Churchyard. It is quite true he is a lunatic. I have known him for some ten or fifteen years. Whilst at his studies at St. Thomas's Hospital no student was more persevering or had greater prospects; but, I believe, family misfortune deprived him of the means of following the profession. For a time he went as an assistant to medical men, but was so strange and irregular in his habits that he was advised to give it up. Since then his life has been more or less a blank, and it would be a real charity to assist him into the home of some medical man who would look after him; or he should go to Bethlem or some place where he will have proper treatment. I should be willing in any way to assist in his support. I am, Sir, your obedient servant,

Sackville-street, W., May 1st, 1885. JAMES STARTIN.

M.R.C.S. OR M.R.C.V.S.?

MEDICAL titles are always rather puzzling to the public. It is, however amusing to see in a provincial paper a letter from a local resident denying a report that his child had been suffering from small-pox, and adding a "doctor's certificate" to that effect, the doctor's signature giving as his qualification "M.R.C.V.S." On looking at the Medical Register, we find he is "M.R.C.S." Did the patient's father insert the *V* to improve appearances?

Insurance.—Mr. Cook's essay and the supplement relating to industrial insurance are published by the author, Arthur I. Cook, at Finsbury-square-buildings, London, E.C.

Dr. H. S.—We regret that we cannot assist our correspondent in the matter.

"RINGWORM."

To the Editor of THE LANCET.

SIR,—Will you allow me to make a few remarks on Dr. Murphy's letter under the above heading in your last issue.

1. There is but little doubt that, as a rule, ringworm of the body will not recur (provided there is no disease of the scalp and no reinfection) if some treatment be continued until the skin is all but normal again at the circumference of the patch, and the margin is quite free from all papules and desquamation, and the place is not raised above the level of the surrounding skin.

2. I think Dr. Murphy is right when he remarks, "The germ that revived probably found a safe hiding-place in some of the hair-follicles." The only way to be certain that every trace of the disease has been eradicated where downy hairs exist is to carefully scrutinise the place with a lens, and to see that there are no minute hairs affected. I have often noticed a few of the small hairs broken off and diseased on a patch of body ringworm which might otherwise have been considered cured.

3. In examining epidermic scales for the fungus in ringworm of the body, it is far better to look for the mycelium threads than the conidia. The mycelium is to be seen as long, slender, pale-greyish, sharply contoured threads like ribands, jointed at irregular intervals, and forming a network between the epidermic scales. To obtain these scales for examination, the inner part of the outer ring, just where it is beginning to desquamate, should be scraped.

4. Of course, I may be mistaken, yet I think it is very possible if the patch seen by Dr. Murphy on March 12th, when it appeared to be well, had been closely looked at with a lens, that one or two broken-off downy hairs would have been detected. If a child be sent back to school at the end of a fortnight, it is always advisable to examine the place from time to time in case of any recurrence.

I am, Sir, yours faithfully,

Christ's Hospital, May 4th, 1885. ALDER SMITH.

J. F. W.—There is no district in England which is specially beneficial in this affection. Sea-air is usually to be avoided, as it acts as a local irritant; but the whole question of climate is one to be determined by a full consideration of all the elements of the particular case.

DRINKING PARAFFIN OIL.

To the Editor of THE LANCET.

SIR,—As drinking paraffin oil by accident or design is not uncommon, the following case may be of interest.

M. B——, aged eighteen, primipara, went through a normal labour on the 5th inst., in which she was attended by an externe from Guy's Hospital. On the twelfth day she showed symptoms of puerperal mania; but no medical assistance was applied for. On the fourteenth day, whilst left alone, she attempted suicide. I found the patient in an excited condition, with an incised wound two inches in length on the left side of the neck. Whilst suturing this wound, I detected the odour of paraffin oil, and she did not deny that she had swallowed some. I also found the mark of a ligature round her neck, consisting of a wheal with reddened edges for the greater part of its circumference, and an abrasion for the remainder. The pupils were moderately dilated, pulse 90, full. The patient was given warm milk-and-water, followed by twenty grains of copper sulphate in warm water. In about fifteen minutes she vomited freely, and not less than fifteen ounces of oil floated on the top of the vomit. This was proved to be paraffin, and corresponded with the amount missing from a bottle which had been left on the table. It must have remained in the stomach for at least forty-five minutes. She experienced no further inconvenience as the result of the triple attempt, but her mental condition being dangerous, she was removed to an asylum on the sixteenth day. I am, Sir, yours truly,

Great Charlotte-street, April 23rd. HENRY WILLSON.

Doubtful.—1. Yes.—2. The infection precedes the disease by a few days, and lasts till the disease is at an end.

Dr. Hudson (Leeds).—The paper is marked for early insertion.

INSTRUMENT FOR IRRIGATING THE UTERUS.

To the Editor of THE LANCET.

SIR,—In your report of the meeting of the Midland Medical Society in your last issue you state: "Dr. Neale showed an instrument for irrigating the uterus," &c. "The makers are Messrs. Woodall, York." This should be "Messrs. Wood and Co., York."

I am, Sir, yours obediently,

York, May 4th, 1885. THOS. J. RUSSELL.

CHOLERA AND ITS PREVENTION.

To the Editor of THE LANCET.

SIR,—I did myself the honour to send you, on Oct. 18th, 1884, a pamphlet which I published in 1871, called "Hindu View of Cholera: a Lecture."

I venture to draw your attention to the late reports from Valencia, in Spain. They are there adopting the method which my lecture suggests. At page 1 I say: "The philosophy, or 'form,' of the great discovery of Jenner, and of the practice of inoculation, has never yet been grasped or sufficiently studied. Had it been, it is probable that now we might have known a potential preventive against cholera." At page 9: "In Europe you now happily seek more a prophylaxis than a cure; but your efforts are cramped and misdirected by the poison and germ theories. The 'pregnant' instances of vaccination, inoculation, quinine, iodine, mineral waters, changed climate, &c., as prophylactics have not yet had a shadow of their just weight on your method." Of course, the instances here cited are in some cases used by way of analogy, to illustrate my method. Again, at page 11: "The splendid light which the instances of vaccination, quinine, &c., give, not having their just effect on your method, it thus happens that whilst cholera appears in the race of man you are content to practise a pernicious treatment of symptoms, and to put trust in disinfectants, directed against totally inefficient causes." At page 13: "When we remember the great power of quinine and arsenic in a series of fevers; when we know that a series of fevers of ten to twenty years' duration can be speedily removed by small amounts of these substances; when we remember the instances of prophylaxis which nature herself presents, such as change of climate, passions for food, and certain elements, &c.,—we cannot but be full of confidence for future discovery. We must grasp what Bacon has taught us on the 'pre-eminency of instances.'" "Many directions are open to the student for discovery which may lead to results as great as that of Jenner." At page 16: "On the other hand, I daily expect to hear the announcement that some student has, by following the analogies and alliances of nature (and which are open to, and part of, all of us), been led to perceive the 'form' of cholera, and to perceive the direction or element of supply, which, given to the system, would render the first change or paralysis, whose residual necessities are the symptoms we call cholera, impossible." "..... and that *every* disease *must* have its prophylaxis."

My lecture is an argument from the *a priori* Hindu philosophy, which philosophy has been re-drawn in Europe by Descartes, Kant, &c., but which has yet too little penetrated your Western method. I argued in my lecture that cholera is not "specific"; that it is an allied "gradation"; that it had long culminating pre-cholera stages in molecular changes in the system, and that our hope of dealing with it was by co-ordinating the system prior to the appearance of that stage which is commonly known as cholera. But I must not take up your space—except on the ground that my quotations of 1871 may be suggestive for further prophylactic trials. My own trials, were I again in charge of cholera districts, would be to give quinine, acids, and some of the aromatic class as prophylactics.—I am, Sir, yours truly,

London, April 29th, 1885. GOLAUB SING, M.D.

A. B.—The answer will entirely depend upon the terms of the appointment. The locality in which a medical officer of health resides is a point which is considered when his appointment receives the sanction of the Local Government Board; but they do not of necessity require residence within the district. Indeed, in some instances access to the various portions of a district is facilitated by residence at a railway centre outside the district. Hence there is no rule on the subject.

A Patient is thanked for his communication; but we do not think his suggestions would enlighten the profession.

"AUTUMNAL STONE."

To the Editor of THE LANCET.

SIR,—With reference to Mr. Robert Jones' inquiry about these Chinese preparations, I may refer him to page 294 of my "Chinese Materia Medica" (Trübner). The "Ts'inshih" is the product formed by the evaporation of the urine of young children, mixed with common salt or sulphate of lime to hasten the crystallisation. It consists mainly of urea mixed with lithates, phosphates, &c. It is met with in small cakes, crystalline, deliquescent, and evidently moulded in little cups. It is salt to the taste, and is used as a diuretic in renal disease. It is often kept in Chinese kitchens to soften fresh meat required for immediate use. "Wu-hu No" means "sal ammoniac from Wu-hu hien in Nganhwin province," where these "autumnal stones" are made. Made from ammoniacal urine, the Chinese confound these "stones" with sal ammoniac (*nau-sha*), a drug in great repute as a solvent for opacities of the cornea. Chinese oculists are remarkably successful in removing nebula and albugo of the cornea by applications of this "autumnal stone," mixed with sulphate of soda.—I am, Sir, yours faithfully,

FREDK. PORTER SMITH,
Member of the Asiatic Society of Paris.

Shepton Mallet, May 2nd, 1885.

Sartorius.—Our correspondent is really the best judge in the question he puts to us. The case was a very important one, and his charges should be at once dignified and reasonable. We would make only one suggestion—viz., to let the charges have reference to visits, time, and distance, and not to medicines.

An Outsider.—There seems to be no great harm in the announcement.

INSANITY IN BENGAL.

IN 1883 the number of admissions into the lunatic asylums in Bengal, which had fallen in 1882 to 165, the lowest number on record, rose to 209. The increase was the most marked in the case of males, of whom 184 were admitted, against 144 in the previous year; while the number of females admitted was 25, against 21 in 1882. The number of readmissions was 23, and consisted of males only. The daily average population of the asylums was 878·67, against 867·12 in the previous year. Out of the 232 cases admitted and readmitted during the year, causes were assigned in 134 instances—30 being moral causes, and 108 physical causes. Of these latter 76 were ascribed to Indian hemp, and of this number only 34 recovered. These figures, however, give no idea of the total number of lunatics in Bengal, and asylum statistics do not afford a true indication of the prevalence of insanity, since only the most dangerous cases are admitted into asylums in India.

Mr. F. C. Batchelor.—We do not see our way to assist our correspondent in the matter.

"CASCARA SAGRADA."

To the Editor of THE LANCET.

SIR,—In reply to Mr. T. L. K. Davies's question in your last issue, I beg to say that cascara sagrada possesses both hepatic and intestinal principles; and at present there is no definite therapeutical study of the action of either principle in an uncombined form. The chemical composition of the drug consists of three resins, about 10 per cent. of the weight of the bark, tannin, oxalic, malic, fat oil, wax, starch in abundant quantity, and a small percentage of a volatile oil bearing the characteristic odour of the bark. Its most reliable preparation is the fluid extract. It acts upon the hepatic secretions and circulations, the whole gastro-intestinal canal, stimulating its morbid condition, and the neighbouring glands to healthy action. As a cholagogue it is invaluable. In chronic constipation its action is good, producing full, easy, pleasant stools, without any tormina, tenesmus, or nausea. The liquid extract, combined with the tincture of iodine painted on the hypogastric region, daily, until the bowels are moved easily, has given the same result after repeated trials on patients suffering from habitual constipation. As a remedy for dyspepsia it is superior to many others of its class, being pleasant to take, and producing no nausea.

I am, Sir, yours obediently,

Geneva, May 4th, 1885. H. C. GLANVILLE.

Mr. David J. Allen.—No comment on the case is to be found in either of the numbers mentioned.

"DISINFECTING CHAMBERS."

To the Editor of THE LANCET.

SIR,—I see, in looking over some back numbers of THE LANCET, that in the issue for April 18th "Medical Officer of Health" inquires as to the best disinfecting chamber. I would strongly advise your correspondent to employ Lyon's Steam Disinfector, which by super-heated steam quickly produces a heat of 230° F. It has been used in these camps for the last year, giving complete satisfaction, and working for close on 3000 patients. The agent, Mr. John W. Lyon, 1, Cowper's-court, Cornhill, will doubtless give all information.

I am, Sir, yours faithfully,

C. W. WAYLEN,
Medical Superintendent, Darenth Camps for
May 5th, 1885. Convalescing Small-pox Patients.

*** We have received other letters bearing testimony to the value of Lyon's Disinfector.—ED. L.

"THE TITLE OF 'DOCTOR.'"

To the Editor of THE LANCET.

SIR,—I have often been tempted to reply in your notes anent the above title, but until I saw the letter signed "M.D." in your issue of the 25th ult. I refrained.

"M.D." says he thinks that if the Colleges of Physicians and Surgeons allow their Licentiates to take the title of "Doctor" they should repay him for the time and money—and, I may add, the 2000 or 3000 hours of extra study (often after bedtime)—spent. "M.D." adds that if they do not do so, he must consider that he has been mercilessly robbed. Who can say he is not in the right? I think your correspondent's letter more to the point than most letters upon this vexed subject.

I am, Sir, yours obediently,

Stranraer, April 27th, 1885. J. CARRICK MURRAY.

S.—We should be unable to find room for the replies which would probably be called forth by the insertion of our correspondent's note.

"CONTAGIOUS DISEASE CARDS."

To the Editor of THE LANCET.

SIR,—What Dr. Kenyon says in his letter published in your columns last week is correct, and your observations thereon are but natural. The figures, as stated, are those already published by Mr. Francis Vacher, to whom I am deeply indebted for the kind permission given to me for employing them in the cards in question. Henceforth means shall be taken to make his claim to their authorship known.

I am, Sir, your obedient servant,

Maidstone, May 2nd, 1885. MATTHEW A. ADAMS.

Unqualified.—The only thing that can be done is to ascertain the exact facts. If they *prove* that a qualified medical man has abetted the practice of the lady in question or other unqualified persons, they should be laid before the Medical Council; but evidence short of proof is of no use.

M.B.Edin.—Our correspondent should mention the facts to his friend. The case seems a special one, and our correspondent seems to us entitled to the fees. But between right-minded friends there should be no difficulty.

RE NON-COMBATANTS.

To the Editor of THE LANCET.

SIR,—I am now attending an officer who, with his regiment, was present when, on March 22nd, the Arab forces of Osman Digna rushed on the zereba held by the 1st Battalion of the Berkshire Regiment and penetrated one corner, as the local newspapers put it. This officer tells me—"The first wounded I saw were two men of the Army Hospital Corps, who are sent into battle unarmed, for a good walking-stick would be better than their side-arms, and who were completely at the mercy of the enemy with their long spears and shields." This is carrying the doctrine of non-combatant to a length which borders on the dangerous, and suggests the question as to how far the authorities are liable for sending men into battle unprotected because they choose to call them non-combatants. I am, Sir, yours obediently,

May 6th, 1885. PAX.

Mr. C. C. Burman (Belford, Northumberland).—The joint should first be smeared with oil; then a mould taken with a paste of plaster-of-Paris, from which it is easy to get a cast with a second fluid of the paste.

A CORRECTION.

To the Editor of THE LANCET.

SIR,—In THE LANCET of Nov. 1st, 1884, appears the following notice of an appointment—viz., that of "Hozier, C. H. Smith, to the Gundagai Hospital." As I am, and have been, the only qualified medical officer attached to the above institution for the past fifteen months, you will greatly oblige by giving the above the most unqualified contradiction. I am, Sir, yours obediently,

Gundagai, New South Wales, March 9th, 1885. J. J. O'DWYER.

*** The announcement was extracted from an Australian medical journal.—ED. L.

Mr. James H. Reilly.—No.

Enquirer is referred to our advertising columns.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Eben. Watson, Glasgow; Mr. J. Bryant, London; Mr. Rodger, Aberdeen; Mr. Gandar, London; Mr. C. E. Paget, London; Mr. C. W. Waylen, Darenth; Mr. James, London; Mr. Read; Mr. Putney; Mr. Steele, London; Mr. F. C. Wright, Manchester; Dr. J. Ince; Mr. Arthur Cooper, London; Dr. G. P. Bate; Mr. Berkeley Hill, London; Mr. Cross, Bristol; Dr. G. Oliver, Harrogate; Mr. Appleyard, Bradford; Mr. Love, Mitcham; Mr. Startin, London; Mr. Somers Vine, London; Mr. C. Atkin, Sheffield; Mr. Parry, Bangor; Dr. Fenwick, London; Dr. McMunn; Dr. Welch; Mr. Hodges, Ryde; Dr. Scott, Berwick-on-Tweed; Prof. Humphry, Cambridge; Mr. Williams, Talgarth; Mr. Anderson, Kirkwall; Mr. Bully, London; Mr. Bainbridge, Middlesbro'; Mrs. Palmer, Erdesley; Mr. Bailey; Mr. Banning, Bushey; Mr. Livingstone; Mr. Ranson, Stafford; Mr. Jeffrey, Eastbourne; Mr. Fuge, Taunton; Mr. Abbot, Sheffield; Mr. Bullock, Folkestone; Mr. Pollett; Mr. Gill, Tavistock; Dr. Adams, Martock; Mr. Hunt, Alexandria; Mr. Hope, Erdington; Mr. Parnell, Forest-hill; Mr. D'Orsey; Dr. Lewers, London; Messrs. Oppenheimer and Co., London; Mr. F. Cox, London; Dr. Syof; Mr. Beardsley, Grange-over-Sands; Mr. Simmons, Droitwich; Mr. Walker, Middlesbro'; Dr. Urquhart, Perth; Mr. Ullrich, Pulina; Messrs. Wilcox and Co., London; Mr. Wiffen, Brighton; Mr. McMunn, Seafield; Dr. Thomas, Glasgow; Dr. C. Nedwill, Christchurch; Mr. F. P. Smith, Shepton Mallet; Dr. Heywood Smith, London; Mr. W. Alexander, Liverpool; Mr. Hilton, Bury; Dr. Bristowe, London; Mr. H. Denham, London; Mr. Kestin, London; Mr. Heaton, Birmingham; Mr. F. C. Batchelor, Brockley; Mr. Alder Smith, London; Mr. Montague, London; Mr. Marshall, Huddersfield; Messrs. Kegan Paul and Co., London; Mr. Saunders, London; Mr. Upton, London; Mr. Marsh, Fulham; Mr. Pike; Mr. Saville; Mr. Ruspini, Knutsford; Dr. Male; Mr. Palmer, Chelford; Mr. Lacy, London; Dr. Ernest Sansom, London; Dr. Thomas Savill, Paris; Dr. Colman, Yeovil; Mr. Whitford, London; Mr. Spurway, Rome; Mr. Frampton, Weston-super-Mare; Dr. Gledhill, Broughton; Dr. Montero; Mr. J. Taylor, London; Mr. Cartland, Windsor; An Outsider; Lex; M.R.C.S., Highbury; M. N.; S.; Doubtful; A. B., Stroud; H. B.; A. B.; Pax.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Eberle; Messrs. Wyleys and Co., Coventry; Mr. Higgins; Mr. Owen, Huddersfield; Mr. Morgan, Edinburgh; Mr. Ward, London; Mr. Morgan, Edinburgh; Mr. McDonald, Manchester; Dr. Muscroft, Pontypridd; Messrs. White and Co., Havant; Messrs. Bell and Bradfute, Edinburgh; Mr. Grant, Birmingham; Messrs. Macmillan and Co., Cambridge; Dr. Napier, Agremont; Dr. Morton, Kilburn; Mr. Parry, Brandon; Dr. Fox, R.N., Bristol; Mr. O'Kelly, Stafford; Mr. Dunn, Cleedy Mortimer; Messrs. Powneeby and Co., London; Mr. Fareman, Auchtermuchty; Miss Roberton, Leicester; Dr. Maynard, Erith; Messrs. Woolley and Sons, Manchester; Messrs. Burroughs, Wellcome, and Co., London; Mr. J. M. Lloyd, London; Dr. Duckworth, London; Messrs. Lœflund and Co., London; Mr. Calder, Liverpool; Messrs. Trubshaw and Co., Mold; Mr. Beaman, Newton-le-Willows; Mr. Wolff, London; Mr. Thompson, Wolston; Mr. Hargreaves, Leeds; Mrs. Griffiths, London; Mr. White, Kingsland; Mr. Long, Sherborne; Mr. Coltmann, Ben Rhydding; Mr. Osborne, Manchester; Messrs. Mackay, Edinburgh; Miss Carson, Burton-on-Trent; Mr. Lockwood, Sheffield; Mr. Heap, Swanage; Mr. Webb, Bury; Mr. Gutteridge; Mr. Williams, Weir; Mrs. Strong, Sandport; Dr. Parry, Bridgend; Mr. Treves, London; Dr. Heelas, Bonchurch; Dr. Bridgman; Mr. Julien, Newark; Messrs. Higgins and Son, Reading; Mr. Tupholme, Louth; Mr. Holloway, Kidderminster; Mr. Edwards, Chester; Messrs. Ford and Co., London; Mr. Crecksen, Gainsboro'; Mr. Johnson, Gloucester; Mr. Webb, Bury; Mr. Smale, Macclesfield; Mr. Watters, New Tounants; Mr. Earp; Miss Spence, Meigle; Dr. Stainthorp; Mr. Field, Bradford; Mr. Hope, Birmingham; Mr. Taylor, Airdrie; G. C. P., Forest-hill; M.D., London; M.D., St. Ives; Secretary, Manchester Royal Infirmary; A. B., Liverpool; B. P. X.; Alpha, London; The Secretary, Hertford Infirmary; X., Rawcliffe; M.R.C.S., Crewkerne; M.D., Tunbridge Wells; M.D., Lincoln; Medicus, Manchester; A., Liverpool; T. T., Liverpool; M.D., Crockherbtown; Medicus, Carrington; Cumberland; E. W., Hartlepool; A. R. P.; Medicus, Ashford; C. J. D., London; F.S.A., Wye; Cantab.; Medicus, Eastbourne; J. B. S., Eastbourne; Medicus, Edinburgh; P. M., Guildford; A. H., London; Locum Tenens, Southampton; H. G.; Medicus, Sheffield; Secretary, Liverpool Hospital for Women.

Guernsey Mail and Telegraph, Guernsey Star, Newberry Weekly News, Ilo News, Southport Visitor, Church of England Temperance Chronicle, Southport Guardian, Liverpool Courier, Jarrow Guardian, Manchester Courier, Manchester Evening Mail, Dundee Courier, Darlington and Stockton Times, York Herald, Glasgow News, Stockport Advertiser, Cheshire County News, Staffordshire Sentinel, Engineering Review, &c., have been received.

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Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.